Formula Review Committee Study

Prepared For

Nova Scotia Department of Education
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TABLE OF CONTENTS

Page

Executive Summary i

Recommendations on Formula Review Committee Mandate, Membership, Structure and Process v

Recommendations on the Funding Formulas vii

Recommendations on Accountability Relationships ix

I Introduction

Terms of Reference 1
Background 2
Balancing Needs and Wants with Available Resources 3

II Methodology

Consultations 4
Data Analysis 5

III Historical Review

Pottier Report 6
The Walker Commission Report 7

IV Profile of the District School Boards

Description 9
Comparisons to Other Provinces 10

V Impacts During the Walker Years

District School Board Expenditures 13
Provincial and Municipal Public Education Expenditures 14
Provincial Grants 15
Municipal Grants 17
Effective Tax Rates 18
Supplementary Funding 19
Special Grants 20
An Assessment of the Walker Years 21

Page

VI Formula Review Committee

Description of Mandate, Structure and Process 24
Our Views and the Views of Others 26
Recommendations on Committee Mandate, Membership, Structure and Process 29
Advantages 31

VII Formula Design

Design Objectives 32
Characteristics 32
Funding Formula Dynamics 33
Using Averages 34
Supplementary Funding 35
What is Being Funded 37
Explaining the Making of Trade-Offs 38
Funding Formula Based on Targets 39
General Formula Funding 40
Property Service Target 42
Transportation Service Target 42
Administrative Services 43
Other Formula Components 43
Board Revenues 43
Basis for Expenditure Projections 44
Impact of Recommendations 44
Using the Recommended Funding Formula in 1990 47
Implementation Considerations 51
Capital Funding 52

VIII Accountability Relationships

Current Practices 54
Our Assessment 56
Recommendations 56
Implementation Benefits 59

Figures

Figure 1 Operating Cost Per Pupil 10
Figure 2 Pupil-Teacher Ratios, Selected Provinces 11
Figure 3 Percent Change in Salaries & Wages Sub-Index 12

Tables (Tab 1)

Table 1 School Board Enrolments
Table 2 School Board Operating Statistics
Table 3 Public School Operating Costs
Table 4 Operating Cost per Pupil
Table 5 Pupil-Teacher Ratio
Table 6 Education Price Index
Table 7 School Board Expenditures
Table 8 Adjusted Net Surplus (Deficit) by District School Board
Table 9 School Board Revenues
Table 10 Ordinary Expenditures, Province of Nova Scotia
Table 11 Comparison of Revenue Sources
Table 12 Comparison of Provincial and Municipal Funding
Table 13 Percent Change in Uniform Assessment
Table 14 Effective Tax Rates
Table 15 Effective Education Tax Rates as a % of Residential Property Tax Rates
Table 16 Calculation of Difficulty Index for School Boards
Table 17 Calculation of Target PTRs for District School Boards
Table 18 Calculation of Supplementary Funding for District School Boards and Impact on Municipal Tax Rate if Implemented in 1989
Table 19 Impact of New Formula on 1989 Effective Tax Rates
Table 20 Summary of Expenditures on Public School Education and Related Sources of Funds

Tables (cont'd.)

Table 21 Comparison of Provincial and Municipal Funding (1990 vs 1989)

Table 22 Impact of New Formula on 1990 Effective Tax Rates

Appendices (Tab 2)

Appendix 1 List of Interviewees

Appendix 2 District School Board and Municipality Questionnaires

Appendix 3 List of Documents Reviewed

Appendix 4 Summary of Major changes to General Formula, Property Service, Transportation, and Supplementary Grants (1982-88)

Appendix 5 Summary of Special Grants

Appendix 6 Terms of Reference for Proposed Sub-Committees

Appendix 7 Description of Calculation of Difficulty Index

Appendix 8 Detailed Responses to Terms of Reference Questions

Executive Summary

School-based education of young people is an important responsibility in Nova Scotia. The process, in large measure, contributes to the nature and capacity of the generations which follow. The Department of Education (DOE) sees its role to "enable individual citizens, through learning, to reach their full potential, thereby ensuring the preservation and improvement of the social, cultural and economic life of the province".

The management, delivery and financing of public services requires periodic adjustment to adapt to changing conditions. It also requires a constant balancing of vested interests of those involved directly or indirectly in service delivery. The DOE believes that the people of Nova Scotia have a fundamental interest, both in the equality and the quality of educational services, and in the cost efficient use of public funds which support these services.

To make best use of limited resources government must have systems and procedures which measure outcomes and the impact on these outcomes of alternate courses of action. As in other public services, measuring desirable outcomes is a challenging task. But this is not a reason to reject outcome measurement.

The DOE is guided by five important values in its service delivery strategy;

- accessibility to educational opportunities,
- equality of educational opportunities,
- high quality of educational services,
- breadth of educational opportunities, and
- sound management of public resources.

The recommendations we make in our report are similarly guided by these values. We were engaged by the Minister of Education to recommend changes to the process of funding and of overseeing district school board operations. Our mandate was divided into three sections; to review and comment on the Formula Review Committee; to assess the funding formula and, if necessary, to recommend an alternative; and to review and comment on accountability relationship of district school boards.

Formula Review Committee (FRC)

We find that an independent body comprised of knowledgable members advising the Minister of Education on the level and distribution of funds for public school education remains a good concept. A single formula-based funding mechanism has widespread appeal and favour with primary stakeholders in the education system. Its annual review by an informed body should continue, but, with some important changes.

We find that a critical component in resource utilization and allocation decision-making is not at hand. A reliable set of education outcome measures upon which to base education effort investment decisions is not available. We believe that the Committee's mandate should be expanded to address this deficiency and to develop the requisite measures in concert with DOE.

To accomplish its new and existing tasks, we see FRC members' focuses being realigned to concentrate and exploit their respective areas of expertise. The FRC should be renamed as the Education and Funding Formula Review Committee and operate in two sub-committees to reflect the added mandate. The composition of the Committee need not change; however, a skilled and capable chairman is required. The Committee should be sensitive to the Province's fiscal capacity and to budgetary guidelines issued by Management Board when it deliberates.

Assessment of the Formulas

School board funding over the last seven years has been formula-based with periodic adjustments to account for underlying changes in the cost structure of education service. An overriding objective has been to achieve accessibility to and equality of educational opportunity while at the same time providing local flexibility and choice to provide service beyond implied norms.

The funding process has not achieved a gradual transition to uniform education spending rates over the period as had been anticipated at the outset. Indeed, one could argue that the formula has tended to freeze the relative service level positions of most school boards at 1982 levels. In 1982, 10 of 22 district school boards had pupil teacher ratios (PTRs) equal to or lower than the provincial weighted average; in 1988, there were eight such boards, seven of which had lower than average PTRs in 1982.

During the 1980's expenditure level reductions did not keep pace with enrolment declines. As a result, Nova Scotia has experienced a 20% real (greater than inflation) increase in per pupil costs. Some additional levels of service have been provided but the incremental benefits in overall education outcome indicators cannot be well demonstrated.

In 1987 the Province started to cost share in the funding of optional (supplementary) expenditures on the basis of municipal ability to pay. This marked a significant departure from the position that expenditures beyond the Provincial norm were the responsibility of local government. The Province embarked on a path which tended to accentuate the differences prevailing in educational opportunity within the province.

Like Walker and Pottier we recommend that funding arrangements for education expenditures in excess of an established norm be 100% the responsibility of local government. A multi-year transition period is contemplated to effect this change. We recommend that the funding of instructional, special education, administrative and property service expenditures be based upon resource utilization targets, expressed, for example, in terms of pupil teacher ratios, which take selected board characteristics into consideration. This approach will preserve the downward pressure on education expenditure growth afforded by enrolment declines. Human and physical resources utilized in excess of the targets should be designated as supplementary to the basic level of educational effort and, therefore, funded by municipalities. While the provincial government is unable to make firm funding commitments on a multi-year basis, the use of funded resource utilization targets should provide district school boards with a basis for long term planning.

Transportation funding should revert to the loaded mile basis used previously, again, to ensure funding to achieve common service levels. To rationalize the demand for new school construction we recommend the introduction of a mandatory local capital contribution. The contribution should be based on the proportion of school board operating costs funded by the board's municipal paying partners. Other components of the formula such as the family of four, capital equipment and repair/renovations and capital bus purchases should be kept.

Introduction of these recommendations will result in a redistribution of provincial education grants. This redistribution, tied to a basic level of education service, will establish an equitable level of provincial funding for district school boards. In some instances the shifts may be considered dramatic. It is likely that these changes will have to be made over time so that the boards and the municipalities can adjust to the new arrangements. The result will be a distribution of financial resources providing greater equality of educational opportunity. Where local preference exists for education service levels beyond the base level, these services can be readily identified and evaluated by those who pay for them.

Accountability Relationships

Accountability relationships are created through delegation of responsibility. School boards, on behalf of the Province, have the responsibility for public school education delivery and therefore are accountable for prudent resource management and effective delivery of education services.

Boards are not required to account for the prudent use of resources or for the delivery of education. We recommend significantly strengthened accountability requirements for school boards. The regime should be based on the concept of annual management assertions from which the Department could determine their accuracy and reliability.

The new accountability framework should specify information requirements of the Minister, require annual reporting and make use of existing and expanded assessment practices. Reasonable assurance should be derived that assets are safeguarded, that education service is carried out economically and efficiently and that public education is delivered effectively. The Education and Funding Formula Review Committee should participate in the development of the new framework using, at the outset, two or three boards as pilot projects. The Committee should be a primary recipient of the annual effectiveness performance reporting.

Recommendations

Formula Review Committee Mandate, Membership, Structure and Process

Two Sub-Committee System

Recognizing the need for an education outcome advisory component to the annual education funding process, it is suggested that the FRC be divided into two sub-committees. One sub-committee, education, would provide advice to the Minister on education service delivery measures and would monitor education outcomes. The other sub-committee, finance, would provide advice on the level and distribution of funding to the district school boards.

Committee Reporting

The recommendations of the sub-committees would be reported to the Minister in an integrated report. The work of the education sub-committee would serve as input to that of the finance sub-committee. The final document would represent the recommendations of the combined sub-committees and would be prepared for the signature of the chair with endorsement by individual sub-committees for their respective contributions.

Committee Membership

Members of the education sub-committee would include a representative of the NSSBA, the NSTU, and the DOE.

The finance sub-committee members would include a representative of the UNSM, the Department of Municipal Affairs, Management Board and the DOE.

Both sub-committees would receive support from the Research Division of the DOE. The concept of resource personnel - alternates would be continued.

An independent chair would sit on both sub-committees and would assume responsibility for reporting the efforts of both sub-committees to the Minister. The chair's term should be at the discretion of the Minister of Education. It would therefore be dependent on the quality and value of the recommendations brought forth by the Committee under the leadership of the chair.

Voting

Each sub-committee member would have a vote on matters pertaining to their respective sub-committee business. Resource personnel - alternates would not vote except when they were acting in the capacity of a member.

Chair

We believe that the chair should be selected on the basis of having the appropriate skills and knowledge. The individual should have patience, political sensitivity, strength and leadership. He/she need not come from the education system, nor government. The chair should have keen analytic, communication and persuasive skills.

Periods of Activity

The education sub-committee would conduct its deliberations in the first half of the year and its recommendations would provide input to the finance sub-committee. The finance sub-committee would become active in the summer and would complete its work in the late fall of the year. The two sub-committees would meet together at least twice each year; at the conclusion of the education sub-committee's work and on completion of the report to the Minister.

Committee Member Terms

Terms of committee member appointment should be not less than two years. Individuals selected to represent the identified interest groups should be at the discretion of the appointing bodies. With the concept of resource person - alternate continued, the understanding would be that if an interest group chose to rotate its representatives then the participant would act as an alternate for at least one year to ensure continuity.

Committee Name

To reflect its wider mandate, the Formula Review Committee should be renamed "Education and Funding Formula Review Committee".

Supplementary Funding

Cost shared supplementary funding is clearly a violation of the Walker notion that educational service levels in excess of a basic level should be for the account of the municipal paying partners. Moving in the direction of 100% municipal sharing on supplementary funding is desirable, on the assumption that the basic level of education services are 100% provincially funded.

The cost shared aspect of supplementary funding should be phased out over a five year period with a one-fifth reduction in provincial sharing each year. This could be accompanied by a reduction in the education tax so that the Province neither gained nor lost in the transition.

During our discussions with the school boards and the municipalities, it became clear that most were unsure of the nature of the expenditures which were being covered by supplementary grants. It is our view that the paying partners must be aware of the expenditures which they fund on a mandatory basis and on a cost shared basis.

Basic Level of Education Service

To facilitate board and municipal trade-off type decision making, the Province must articulate what constitutes a basic level of education service. The basic level of service should be stated in terms of resource deployment.

General Formula Funding

The student unit driven general funding formula, which is based on a determination of the Provincial average cost, should be replaced by a Pupil-Teacher Ratio (PTR) based formula founded on a targeted level of education service effort. Expenditures related to education service levels in excess of the PTR targets would be considered supplementary.

Property Service Target

In a similar manner to the PTR target concept for school administration and instruction, we propose a targeted level of property service expenditures based on an established rate per square foot and a target level of pupil driven gross square footage.

Transportation Service Targets

For transportation service we propose a formula similar to the one recommended for property service. In this case, however, we suggest establishing a rate per loaded pupil mile based on the average cost of operation of the provincial bus fleet.

Administrative Services

We support the concept of being sensitive to the needs of the smallest boards. Therefore we propose a dual administrative service rate; the first, for small boards, being an enrolment driven grant based on the average cost of operation of the small boards (less than 3,200 pupils); the second, for all other boards, also being an enrolment driven grant based on the average cost of operation of boards with enrolments over 3,200.

To the extent that a board is unable to operate at or below the average of the boards in the group, these amounts will be considered supplementary. We advocate the maintenance of a minimum adminstration services grant ($420,000 in 1990) for all school boards. This grant should be price indexed using say the Nova Scotia CPI.

Other Formula Components

Except for school capital discussed below, we do not recommend changes to the funding formula for the "family of four" (special education to form part of the PTR based general formula), capital equipment and repairs/renovations, or bus purchases.

Board Revenues

We recommend continuance of the practice of including board revenues as a source of funding. There are some forms of unique fund raising activities, such as special projects funded by the Federal government in Richmond District School Board, which boards can initiate. These funds should not be treated in the same manner as other board revenues, rather they should remain directly with the board. Direct costs associated with these special projects should be accounted for separately and excluded from the funding formula calculations.

Capital Funding

To limit the demand for new school facilities and to ensure only the highest priority school projects go forward, we propose the introduction of a mandatory local capital contribution. The amount required should be based on the proportion of board operating costs funded by municipalities.

Accountability Relationships

The Minister of Education should establish a new accountability framework that describes:

i) *the Minister's information requirements;*

ii) *the annual reporting requirements of each Board;*

iii) *the process and timetable for reporting; and,*

iv) *how existing assessment practices will fit within the new framework.*

This new framework should be guided by three fundamentals. They are:

i) *the Minister needs information relevant to his responsibilities under the Education Act and as a member of the provincial Cabinet;*

ii) *school boards need to know that information being requested will contribute to their own goals of good management; and,*

iii) *all information required for accountability purposes must be capable of substantiation. Accountability cannot be satisfied by the general opinions or intuition of others.*

The Education and Funding Formula Review Committee's mandate should be expanded to make it responsible for:

i) *recommending initial accountability information requirements to the Minister;*

ii) *recommending modifications or amendments to the Minister's accountability information requirements; and,*

iii) *reviewing accountability reports and recommending, where warranted, ways of improving resource utilization and/or education delivery quality.*

Accountability information, in this context, must be related to prudent resource management or quality of education programs and must be capable of substantiation.

We recommend that initial information requirements focus on providing reasonable assurance that:

i) *physical assets are properly safeguarded;*

ii) *public school programs, building maintenance and pupil transportation are carried out economically and efficiently; and that,*

iii) *public education is being delivered effectively.*

Annual information reports should provide assertions from Board management that the information provided is, to the best of their knowledge, accurate and reliable.

Board management must take responsibility for the accuracy and reliability of information provided to the Minister. For the information to have value, the Minister must be able to rely upon it.

Existing examination practices should be continued. In the future their focus should be directed toward the accuracy and reliability of information contained in board reports.

Departmental examination practices, and the work of the Auditor General, provide needed assurance that the education system is sound. They form an essential part of the validation process and should continue.

Implementation of the new accountability framework should commence on a pilot basis in 1990 with full implementation to occur in 1992.

It will take time to develop appropriate accountability information. Two or three boards should participate in the development of the Minister's information requirements. These same boards should help develop and test reporting mechanisms. We expect it to take about two years to develop initial information requirements. These should be introduced to boards for the 1992 fiscal year. The Education and Funding Formula Review Committee's Education sub-committee should participate in the development of the accountability framework.

I. Introduction

Terms of Reference

In response to the March, 1981 Report of the Commission on Public Education Finance (the Walker Commission), a Formula Review Committee (FRC) was established by the Minister of Education. The Committee's mandate was to make recommendations to the Minister regarding funding formulas for district school boards. The Committee has functioned for eight years making various modifications to formula components while preserving its original concept. Changes to the formulas have been made to response to changes in the cost structure of public education and in response to the need to maintain the relative sharing of costs with municipal government.

In December, 1988 the FRC reported its agreement with Government and others on the need for a comprehensive review of the funding formulas, and the Committee's mandate, structure and process. The Minister concluded that such a review should be conducted by external management consultants in the early fall of 1989. He expected that some, or all, of the recommendations arising from the review might be ready for implementation in 1990.

One reason for the review rests with the formula's perceived inadequacy as reflected by the number of school boards requesting special funding. The frequency of these requests has increased, as has the level of funds requested. The question of adequacy is obvious. When requests are granted, the question of equity becomes a concern.

Our objectives are:

i) To review and comment on the structure, mandate and reporting relationships of the Formula Review Committee and the process followed by the Committee in recommending funding formulas;

ii) To assess the appropriateness of the existing funding formulas and, if necessary, propose alternative methods of financing both operating and capital requirements of school boards consistent with objectives of public education in Nova Scotia; and

iii) To review and comment on the present accountability relationships between the provincial government, school boards and municipal units.

Background

Expenditures for public education in Nova Scotia represent a significant portion of the resources of the Province. In its 1987/88 fiscal year, Nova Scotia, through the Department of Education, expended $615 million for the provision of elementary and secondary school education services. Second only to health and fitness, education represented 18.7% of the Province's ordinary expenditures.

The Province of Nova Scotia has recorded budget deficits for the last eight years. In 1987/88 it posted a $115.3 million deficit adding to the accumulated provincial net debt of $3.7 billion.

The size of the education budget in relation to the Province's deficit budget, like that of the health care budget, demands that extra attention and care be taken when making funding decisions on these public services.

Department of Education expenditures are made with the intent of "enabling individual citizens, through learning, to reach their full potential, thereby ensuring the preservation and improvement of the social, cultural and economic life of the province."[1]

In striving to achieve its purpose, the Department is guided by five important values:

- "Accessibility to educational opportunities;
- Equality of educational opportunities;
- High quality of educational services;
- Breadth of educational opportunities; and,
- Sound management of public resources."[2]

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[1] Program Plan, Role and Objectives of the Department of Education (1986)

[2] Ibid.

Balancing Needs and Wants with Available Resources

The management, delivery and financing of public services requires the constant balancing of vested interests and opposing forces. Decision makers must choose between several alternatives. Some advocates call for service enhancement. Others call for maintenance of the status quo. And still others call for a reallocation of resources.

The Department of Education considers its key stakeholders to be the citizens of Nova Scotia. The public supports the Department through its taxes. It is a direct or indirect beneficiary of educational services. The Department believes that the people of Nova Scotia have a fundamental interest, both in the equality and quality of educational services, and in the cost efficient use of public funds which support these services.

The recommendations we make in this report

- take direction from the Department of Education's value statements and beliefs;
- integrate the views and positions of the many players in the education community;
- consider the implications of the Province's finances; and,
- build on the goodwill and strong relationships between those in education delivery and those in education finance.

II. Methodology

Consultations

Our study approach focussed on broad-based consultation with the key players in education financing and delivery. We conducted a thorough analysis of financial and statistical data provided by the Department of Education.

Interviews were held with the following:

- Eight of the Province's 21 district school boards;
- Five municipal units;
- Nova Scotia Teachers Union (NSTU);
- Nova Scotia School Boards Association (NSSBA);
- Union of Nova Scotia Municipalities (UNSM);
- Current and past members of the Formula Review Committee;
- Department of Education senior officials;
- Current and former Minister of Education; and the
- Current Minister of Finance

A detailed list of groups and individuals interviewed is contained in Appendix 1.

The eight district school boards were selected to ensure representation from small and large boards, from rural and urban areas throughout Nova Scotia, from boards having varying levels of financial difficulty, and from Francophone districts. Similar criteria were used in the selection of the five municipalities. These municipalities were "paying partners" in five of the 13 district school boards not visited.

Questionnaires were prepared and provided to each of the district school boards and municipalities (see Appendix 2) in advance of the interviews. Interview questions focussed on the role and structure of the Formula Review Committee, the appropriateness and impact of the current funding formulas, and accountability relationships among the boards, municipalities and the Department of Education. The questions were designed to identify common viewpoints as well as differences of opinion on matters surrounding the terms of reference. Responses to the questionnaires were used to prepare a summary of the positions of boards and municipalities.

A similar approach was used in our interviews with representatives of the NSTU, NSSBA, UNSM, members of the Formula Review Committee, and the current and former Minister of Education and the Minister of Finance.

In addition, we held biweekly progress meetings with the Deputy Minister and senior management of the Department of Education.

Data Analysis

Our analysis of financial and statistical data is based mostly on information provided by the Research Division of the Department of Education. The majority of data is from the 1982 to 1988 period and includes the following:

- District school board revenues and expenditures;
- Department of Education formula and non-formula grants;
- District school board audited financial statements;
- Operating statistics including enrolments, pupil-teacher ratios (PTRs), average teachers' salaries, number of schools; and
- Annual reports of the Formula Review Committee (1981 - 1988).

A detailed statistical summary was prepared for each of the 21 district school boards as well as the Province as a whole. This provided the basis for comprehensive computer-aided analyses of PTRs, operating costs per pupil, and other key operational statistics. A sensitivity analysis of proposed funding changes using a 1989 test year was also undertaken.

Interprovincial comparisons of education expenditure data were somewhat limited. Our analysis is based on information from The Financing of Elementary and Secondary Education in Canada, a publication of the Council of Ministers of Education. We also reviewed relevant education statistics from Statistics Canada.

In addition, a number of other key sources of information were also examined. Most notable sources were the Report of the Commission on Public Education Finance (the Walker Commission Report), the Department's Public School Programs and the Education Act and Regulations. A complete list of all documents reviewed is contained in Appendix 3.

III. Historical Review

Before meaningful recommendations can be made on any matter, familiarization and analysis of the past must be conducted. The strengths and weaknesses of past practices and impacts must be known so change, arising from the recommendations, builds on the strengths and overcomes the weaknesses.

The following section identifies the impacts that have occurred during the period immediately before the Walker Commission to 1988. We re-visit the Pottier Report to start the review.

Pottier Report

The Report of the Royal Commission on Public School Finance in Nova Scotia was written by Justice V. J. Pottier in 1954. This report established the basic principles of education finance in Nova Scotia. Judge Pottier believed that school-age children in rural areas should have ***the same educational opportunity*** as urban children.

Under the Pottier formula, each area of Nova Scotia contributed to the support of its school system according to the area's ability to pay. This was calculated by the application of a rate to the equalized assessment in the area, with the residual costs being provided by the Department of Education. Under this arrangement, tax rates were established such that education costs for the whole province were to be shared 50:50 between the municipal units and the Province.

The Pottier formula was effective during its first decade of operation. However, problems arose because of deviations from a strict application of ability-to-pay as outlined below.

- Legislation passed in 1955 guaranteed every municipal unit a minimum level of provincial assistance.
- Later, in 1970, legislation was passed which limited the increase in assessment that could be used for the municipal unit's portion of shareable education expenditures.

- The Education Assistance Committee, established in 1970, was viewed as having too much discretionary power. It had virtually unlimited authority to make recommendations to the Department of Education regardless of the rates of sharing specified under the Education Act and Regulations.

- In 1975, the Department of Municipal Affairs began to reimburse the municipal units for the residential portion of property taxes applied against shareable education expenditures.

- In 1977, the minimum percentage of provincial financial assistance provided to the municipal units was frozen, thus ensuring that the provincial proportion would not decline.

- By 1980, the various rates upon which shareable costs were being computed by the Department of Education were out of date. Approximately 10% of total educational costs was classified as unshareable and had to be completely absorbed by the municipal units.

When the Walker Commission was appointed to examine the public education finance system in 1980, it found a system that had largely abandoned the principles advocated by Pottier in 1954.

The Walker Commission Report

The Report of the Commission on Public Education Finance (the Walker Commission Report), written in 1981, supported the main principles of shared financial responsibility advocated by Pottier in 1954.

The Commission believed:

> "...in a shared responsibility for the financial support of public education in Nova Scotia at a predetermined program level, with the provision that the local municipal units may finance programs of a particular or unique nature in accordance with their own preferences and at their own expense."

The Commission also stated that the implementation of shared responsibility was dependent on two factors:

1) a fair and reasonable determination of a municipal unit's ability to pay an affordable amount towards education expenditures; and

2) a concise determination of the program content and related approved sharing rates of expenditure for which the financial responsibility will be distributed between the two parties.

The Walker Commission Report rejected the notion of the Province assuming the full financial responsibility for public schools in Nova Scotia, as advocated by the 1974 "Graham Report." The Commission did not consider that 100% provincial funding guaranteed equal educational opportunity.

The Walker Commission Report contained a total of 64 recommendations. The major ones are listed below:

- A minimum core program for Grades Primary through 12;
- A reduction in the number of district school boards from 66 to 21;
- A general formula for school programs (covering all reasonable education expenditures) to be funded on a global basis;
- Municipal ability-to-pay be based on uniform assessment;
- Expenditures beyond the amount recognized by the Province for funding be subject to prior approval of 80% of the membership of the district school board and that this amount be 100% assumed by the municipal taxpayers;
- The Province assume 100% of existing and new approved school debt charges;
- Establishing new funding formulas for special education, driver education, adult education, transportation, and property service;
- The Minister of Education establishing a Formula Review Committee to examine annually all funding rates for education financing and making recommendations to the Minister regarding appropriate adjustments in these rates.

Substantially all the Walker Commission's recommendations were accepted by the Government of Nova Scotia and implemented in mid-1981. The full impact of the Commission's recommendations took effect in 1982.

IV. Profile of the District School Boards

Description

The district school boards in Nova Scotia vary widely in several dimensions. The disparity in board characteristics makes formula funding especially difficult, but not impossible, if simplicity, fairness and equity are objectives.

More than half of the school boards in Nova Scotia can be referred to as small boards. In 1988, 11 of the 21 boards had enrolments of less than 5,000 pupils each (Table 1). The combined enrolments of these 11 boards represents only 22% of the total provincial enrolment. The seven boards with enrolments of more than 10,000 accounted for 65% of the provincial total.

Table 2 lists key school board statistics on a province-wide basis. Between 1982 and 1988, total enrolment declined from 181,685 to 169,478, or 6.7%. Enrolment declines were experienced by all boards except Halifax-County Bedford (6.7% increase) and Colchester-East Hants (0.4% increase).

In contrast, during the same period, the number of full-time equivalent teachers decreased by 3.6%. This may be due to an increased demand for programs and services in the school system. It may also reflect the difficulties associated with downsizing the human resource complement in parallel with the enrolment declines. Thus, the provincial weighted average pupil-teacher ratio (enrolment divided by full-time equivalent teachers) declined from 16.8 to 16.2.

Declining enrolment is also reflected in the decrease in the number of schools from 594 in 1982 to 532 in 1988. However, while the average number of pupils per school increased from 306 to 319, the gross square footage per pupil also increased from 107 to 113. This may reflect changes concerning the type of space that qualifies as gross square footage for the property service formula. It may also indicate a less than efficient use of school properties by some boards.

Between 1982 and 1988, average teachers' salaries increased by 34% from $30,251 to $40,423. This increase reflects a cost of living as well as length of service and upgrading increments. Actual administration and instruction costs increased by 41%, reflecting real growth in the level of either administrative or teaching effort over the period.

Comparisons to Other Provinces

Table 3 shows that the percentage increase in public school operating costs in Nova Scotia between 1979 and 1986 exceeded that of the other three Atlantic Provinces. Nationally, the percentage increase in Nova Scotia was the fourth highest for this period.

In 1986, Nova Scotia had the highest operating cost per pupil ($3,517) in Atlantic Canada but was seventh nationally as shown in Table 4. In the 1979 to 1986 period (Walker Report implemented 1982), the Province had the second highest increase (101.4%) in Canada in operating costs per pupil. Comparative operating costs per pupil are presented graphically in Figure 1.

Figure 1: Operating Cost per Pupil (1979 vs 1988)
(Source: The Financing of Elementary and Secondary Education in Canada, CMEC, October 1988)

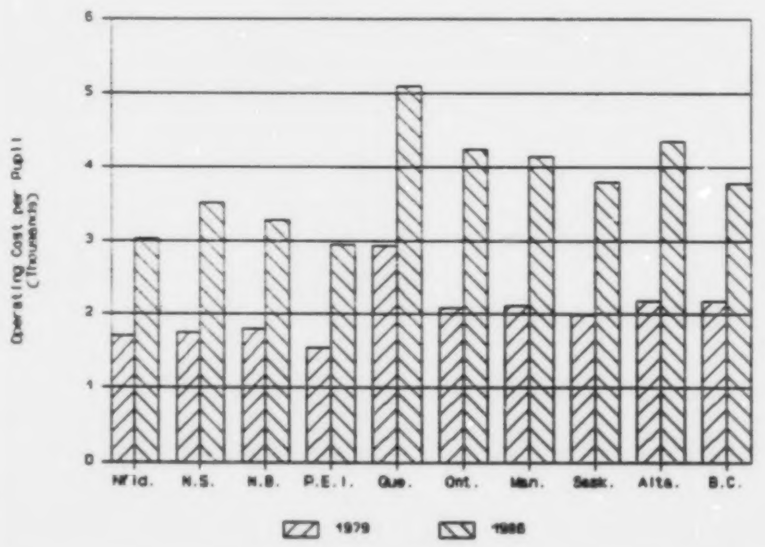


Table 5 shows that Nova Scotia had the fourth lowest pupil-teacher ratio (16.4) in Canada in 1986. During the 1979-86 period, New Brunswick (20.0 to 18.3) and Prince Edward Island (18.5 to 17.8) had significantly higher PTRs than Nova Scotia. Quebec (14.6 to 15.1) has consistently had the lowest PTR of any province in each year from 1979 to 1986.

Nova Scotia, like other provinces and Canada as a whole, did not maintain PTR levels of the early 1980s. This may have led to an accumulation of excess teacher capacity in the education system.

	Pupil Teacher Ratios Canada	 Nova Scotia	 Atlantic Canada
1979	17.9	17.1	18.9
1986	16.8	16.4	17.4
Change	(6.1%)	(4.1%)	(7.9%)

PTRs for selected provinces are also shown in Figure 2 below.

Figure 2: Pupil-Teacher Ratios, Selected Provinces, 1979-1986
(Source: The Financing of Elementary and Secondary Education in Canada, CMEC, October 1988)

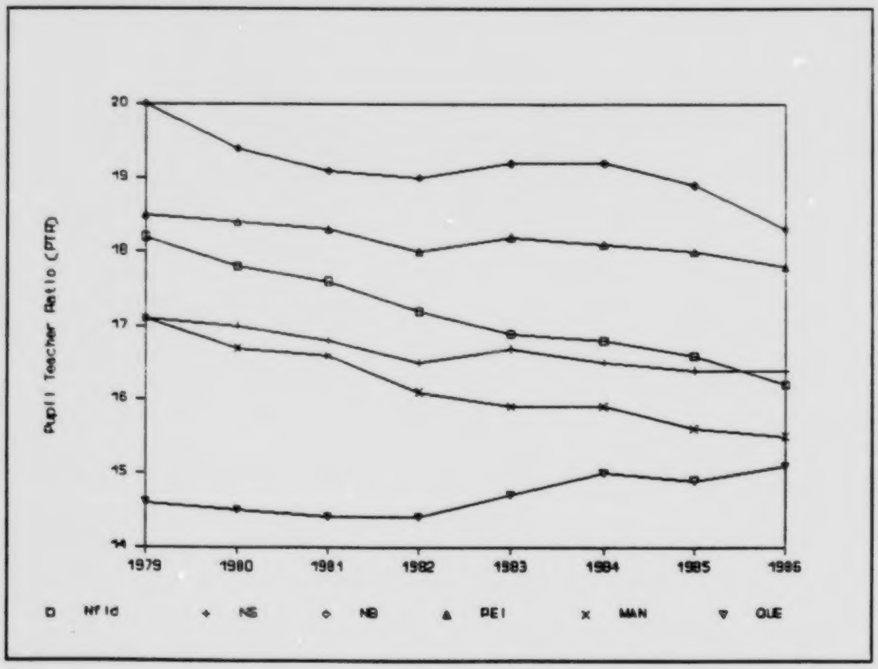
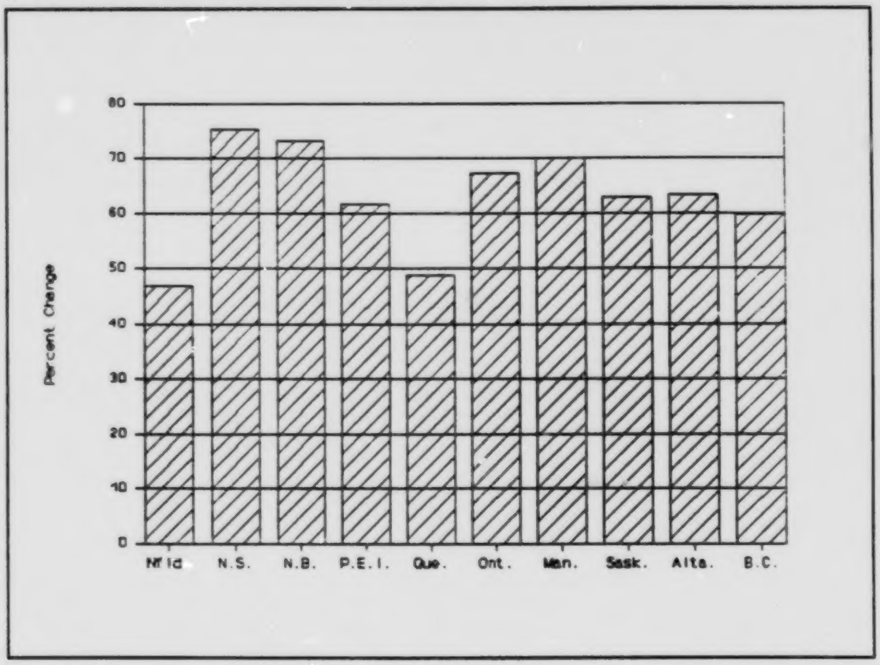


Table 6 is a summary of the percentage change in the Education Price Index (EPI) between 1979 and 1986 in each of the ten provinces. The EPI, as determined by Statistics Canada, is an input index that measures price changes of a fixed basket of goods and services purchased by school boards (reference year is 1981 = 100). Table 6 also shows the change in the salaries and wages sub-index (mostly teachers' salaries), which accounts for 82% of the EPI. This change is represented graphically in Figure 3 below.

Figure 3: Percent Change in Salaries & Wages Sub-Index (1979 to 1986)
(Source: Statistics Canada, Catalogue 81-002, July 1987)



Between 1979 and 1986, the EPI in Nova Scotia rose 75.6%, more than in the other provinces. This is mainly attributable to the Province also having the largest increase (75.2%) in the salaries and wages sub-index (three quarters of this increase took place between 1979 and 1983 during the period of high interest rates and rapid inflation). In contrast, the Consumer Price Index (as measured in Halifax) for the same period increased by 63%, or almost 13 percentage points less than the increase in the EPI.

V. Impacts During the Walker Years

District School Board Expenditures

Table 7 shows that between 1982 and 1988, total school board expenditures rose by almost 38%, from $503 million to $692 million. This increase is more than the 29% rise in the consumer price index occurring in the same period. Operating and capital expenditures increased by 40% and 37%, respectively.

Table 8 shows for the same period school boards reported a cumulative adjusted net surplus of $12.37 million. (Surpluses reported by the boards were adjusted to include transfers to and from reserve and surplus accounts). The majority of the accumulated surplus was recorded in 1982, the year in which the FRC commenced operation. In the last four years, 1985 through 1988, the boards have realized an increase in cumulative surplus of $1.67 million (representing 6/100th's of 1% of total revenues received in the four year period). In 1988 the majority of boards incurred adjusted deficits (15 of 22).

Between 1982 and 1988, administration and instruction (mostly teachers' salaries) costs increased from 76.3% to 76.8% of total operating expenditures, as shown in Table 7. The proportion of family of five expenditures (special education, adult education, driver education, summer school, and board of pupils) increased from 5.9% to 7.3% of operating costs, largely as a result of a 76.4% increase in special education.

By comparison, transportation and property service costs have declined from 6.0% to 5.4% and from 11.8% to 10.5%, respectively. The reduced proportion of transportation and property service expenditures coincides with a decline in enrolment and number of schools, respectively.

On a per pupil basis, the provincial operating cost (administration and instruction plus property service costs divided by enrolment) increased from $2,187 in 1982 to $3,256 in 1988, or an increase of 49% (Table 7). Total operating costs per pupil (including the cost of transportation and all other items) increased by more than 50%, from $2,482 to $3,729.

Nova Scotia has experienced a real increase in the cost per pupil, i.e. 21 percentage points over inflationary increases. This points to the concern that costs have not decreased in relation to pupil population declines.

It also raises the question of how much better the Province has "enabled individual citizens, through learning, to reach their full potential, thereby ensuring the preservation and improvement of the social, cultural and economic life of the Province". Over the period government seems to have provided generous expenditure increases for the delivery of education services in the province.

Based on this trend one could argue that the average Nova Scotia pupil in 1988 was getting 21% more education service than his counterpart six years earlier. It is not only difficult to identify what additional services have been provided to the average pupil; it is also difficult to evaluate the nature of their impact.

Provincial and Municipal Public Education Expenditures

Between 1982 and 1988, total Department of Education grants to district school boards increased by almost 37%, from $409.6 million to $560.0 million (see Table 9). This rate of growth is below the rate of growth of other public expenditures funded by the Province. For example, total ordinary expenditures for the Nova Scotia increased by 55% between fiscal 1981-82 and 1987-88 as shown in Table 10. Health and Social Services expenditures increased by more than 70%. All other expenditures excluding Education grew by 38% during the same period. One would expect that education expenditure growth would be less than the other areas because of the significant (6.7%) reduction in the number of pupils.

Total municipal grants (education tax and supplementary funding) grew by 35% from $80 million to $108 million (Table 9). Board operating revenues increased by 65% from $12 million to $21 million. On an overall basis during the period after the Walker Commission, the three major sources of revenue have remained fairly constant in relation to one another, i.e. provincial (81%), municipal (16%), and board (3%) as shown in Table 11.

A comparison of total provincial and municipal funding (Table 12) shows that the overall ratio of provincial to municipal funding has remained at a ratio of approximately 84:16 between 1982 and 1988. Before implementation of the Walker Commission recommendations, the municipal portion was higher, i.e. in 1979, the provincial/municipal ratio was 81:19.

It would appear municipalities have benefitted from the impact of the Walker Commission recommendation to reduce the number of school boards to achieve economies of scale.

Provincial Grants

Provincial grants fall into two major categories. Global grants (general formula, property service, transportation) are those which a school board may use under its priorities to provide education services required by the regulations. The use of specific purpose grants (special education and other "family of five"), on the other hand, is audited by the Province and any amount not used for the specified purpose is recoverable by the Province.

The general formula grant (GFG) provides each district school board with a fixed amount per student unit to cover administration and instruction costs. Several adjustments have been made to the formula between 1982 and 1988. The most notable of these were:

- the introduction of a salary weighting factor in 1984;
- the introduction of weighting factors for small and rural school boards in 1984-86;
- the addition of a flat $200,000 grant for district school board administration in 1988 ($400,000 in 1989); and
- the elimination of the enrolment decline factor in 1987 and 1988.

Between 1982 and 1988, the GFG, which represents approximately two-thirds of total provincial grants to school boards, increased by 33% from $270.5 million to $359.5 million (see below). This is similar to the increase in the property service and transportation grants. However, the special education grant, the largest of the "family of five" specific purpose grants, increased by more than 76%.

Provincial Operating Grants

($000s)

Grants	1982	1988	82 to 88 % Change
Global			
General Formula	270,513	359,548	32.9%
Property Service	50,399	65,456	31.9%
Transportation	26,036	34,092	30.9%
Specific Purpose			
Special Education	18,184	32,085	76.4%
Other	3,906	4,058	3.9%
Total	369,038	495,239	34.2%

The effect of a greater increase in special education is that more onus is placed on the Province vis a vis the school boards to monitor expenditures that fall within the meaning of special education.

A summary of the changes made in formula funding between 1982 and 1988 is provided in Appendix 4.

For the years 1982 through 1986, the operating portion of transportation grants was based on an amount per eligible students weighted for density distribution and other factors in some years. Beginning in 1987, the transportation grant has covered 100% of operating costs as well as a fixed amount for bus purchases.

In the two years since 1986, the transportation grant (operating plus capital) has increased by more than 17%, compared to an increase of only 12% in the four years before 1986. The rapid escalation in transportation costs appears to be directly linked to the 100% provincial sharing arrangement which was implemented in 1986. The increase is cause for concern, given the enrolment declines since 1986. This part of the funding formula requires careful attention since cost behaviour is inconsistent with historical patterns and expected utilization.

Since 1982, the Department of Education has covered 100% of approved school capital debt charges. Capital grants per pupil increased by 36.5% from $22,314 in 1982 to $30,461 in 1988. This increase reflects additional debt service charges for the construction of new schools and the renovation of existing ones. Between 1981 and mid-1989, Executive Council approved 93 school capital construction projects with an estimated value of $235 million.

Between 1982 and 1988 the Province opened 13 new schools and completed 26 school renovations. With the closing of 75 schools, there has been a net decrease of 62, from 594 in 1982 to 532 in 1988.

Currently, there are 13 projects (seven of which are alterations or additions to existing school buildings) under construction. An additional 34 projects (26 of which are additions or alterations) have been approved by Executive Council and are now in the planning stages. The total cost of servicing the debt for these projects plus the existing debt will rise from $38.3 million (1988/89) to $53.9 million by 1991/92, or an increase of almost 41%.

The Walker Commission recommended that the Province fund 100% of school construction costs because of the wide variation in the financial resources of municipalities. The rapid increase in capital funding to school boards is partly a function of the need to upgrade existing school properties, many of which were built in the late 1960s. However, one must also question whether the rapid increase in capital grants funding is, like transportation expenditures, a consequence of 100% provincial government funding.

Municipal Grants

There are two types of grants provided to school boards by municipalities. An education tax rate, established by the Province and levied by the municipalities, is based on uniform assessment. Municipalities also contribute supplementary funding on a cost-shared basis with the Province. The basis of cost sharing on the supplementary funds is linked to the municipal unit's ability to pay, i.e. education tax per student unit.

Between 1982 and 1988, municipal grants from the education tax (calculated as a rate per $100 of uniform assessment) increased by almost 75%. The actual 1988 rate ($0.37) was virtually the same as in 1982 ($0.38). The increase in the education tax grant is due largely to a 79% increase in uniform assessment during the same period.

However, the increase in uniform assessment was not proportional across the province. In 18 of the 22 school boards the increase in uniform assessment was less than 79% (see Table 13). This is because the combined uniform assessments of the Halifax, Dartmouth, and Halifax County regions, which account for almost 50% of the total provincial uniform assessment, increased by 104% since 1982.

Effective Tax Rates

The effect of the increase in the uniform assessment means that the municipalities' portion of education funding has shifted from supplementary funding to the education tax. For example, in 1982 the education tax ($49.5 million) represented 62% of municipal education expenditures compared to 80% ($86.5 million) in 1988 (see below). Due to the increase in uniform assessment, the effective education tax rate (education tax plus supplementary funding divided by uniform assessment) actually decreased. In 1982, the provincial average effective education tax rate was $0.587; in 1988 it was $0.459 (see Table 14).

Municipal Contributions to Education Funding

($000s)

	Municipal				
Year	Educ. Tax (Mandatory)	%	Supplementary	%	Total
1982	49,492	62	30,512	38	80,004
1985	67,954	70	28,734	30	96,688
1988	86,530	80	21,430	20	107,960

As a measure of the relative burden of the education tax, we analyzed the effective education tax rate as a percentage of the residential property tax rate in each of the 66 municipalities that provide funding to district school boards (Table 15). Our analysis shows between 1982 and 1988 the effective education tax rate as a percentage of the residential property tax rate declined in 46 of the 66 municipalities. The average decrease was 7.6 percentage points. In the 19 municipalities that realized an increase, the average increase was 2.8 percentage points.

Supplementary Funding[3]

Supplementary funding is calculated by the Department of Education as the difference between projected grants covered by the recommended formulas and Committee-estimated expenditures for each of the school boards.

Supplementary funding from the municipalities decreased (by 30% from $30.5 million in 1982 to $21.4 million in 1988) when, in 1987, the Province began to cost share this type of funding.

Supplementary Funding

($000s)

	1982	1988
Provincial	0	11,308
Municipal	30,512	21,430
Total	30,512	32,738

The district school boards in Halifax City and Dartmouth, the two largest urban centres in the province, received about 61% of total supplementary grants in 1988. The number of school boards receiving supplementary funding ranged between 11 and 13 from 1982 to 1986 but increased to 17 in 1988. Total supplementary funding (municipal plus provincial) was $32.7 million in 1988.

The increase in the number of boards receiving supplementary funding, reflects a decreased sensitivity of the funding formulas to match board expenditures (the more expenditures are covered in the general formula, the less required from supplementary funding).

This tendency may mean that the formulas were set so as not to cover expenditures that were growing at rates in excess of what the formula allowed. Another possible explanation is that district school boards may not have responded appropriately to the reduced rate of growth of the education grants as dictated by enrolment declines.

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[3] Technically speaking, from 1987 onwards, the term "supplementary funding" refers to funding in excess of recommended formula amounts provided to boards and cost shared by the Province and municipalities. Prior to 1987, when the Province did not cost share this type of funding, voluntary municipal contributions were referred to as "optional funding". However, for purposes of this report, we have referred to pre- and post-1987 funding as supplementary funding.

Special Grants

The Department of Education also provides special grants to some district school boards. Total special grants ranged from $102,000 in 1987 to $1,977,378 in 1988 (see Appendix 5). A major portion of the special grants in 1986 and 1988 relates to minimum guaranteed increases in funding (i.e. non-discretionary) for the Halifax City District School Board (1986 and 1988) and Lunenburg District School Board (1986).

However, the table below shows there has been a significant increase in discretionary special grants. This increase, from $42,135 in 1986 to $347,000 in 1988 and $1,102,170 in 1989, represents a departure from the funding formula mechanism recommended by the Walker Commission. The Commission itself was established because of the problems inherent in the discretionary funding powers of the Education Assistance Committee.

Special Grants

Year	Non-Discretionary	Discretionary	Total
	$	$	$
1986	613,338	42,135	655,473
1987	46,528	56,260	102,788
1988	1,630,378	347,000	1,977,378
1989	314,800	1,102,170	1,416,970

An Assessment of the Walker Years

Any recommendations which a consultant or commission make to government are best tested through an evaluation of the results of their implementation.

The recitals prefacing the Walker Commission's recommendations include the following:

WHEREAS

(i) the need for a clearly defined minimum program of study for all levels of the school system was the concern most commonly expressed in the submissions, and

(ii) equal access to education programs has not been achieved in Nova Scotia, and

(iii) variations in local priorities assigned to education have resulted in lack of uniformity in program offerings, and

(iv) a clear relationship must exist between the programs offered and the related funding, and

(v) financial constraints have prevented some boards from providing programs comparable to other boards, and

(vi) many boards now offer programs in excess of the minimum program and wish to continue to do so,
therefore we make etc.,

The underlying theme of the recitals is one of preference for movement to equal access to a funded minimum uniform level of education programming which, at the option and local expense of boards could be enhanced. With its recommendations the Walker Commission subscribed to the expectation there would be a gradual transition to uniform education spending rates over a reasonable period.

To test whether this was achieved we determined if education costs per pupil for individual district school boards tended to move to a common average over the period 1982 to 1988. Because there are inherent operating cost differences between boards we excluded expenditures on transportation from the cost per pupil calculation. We adjusted the cost per pupil data to eliminate the price differences of average teachers' salaries.

We found that modest shifts occurred in the average cost (adjusted administration and instruction plus property service) per pupil between 1982 and 1985 such that the dispersion around the mean narrowed. Between 1985 and 1988, this measure of uniformity reduced to levels exceeding that recorded in 1982. This may relate to the removal of weighting factors from the formulas in 1987 and 1988. The elimination of the enrolment decline factor in 1987 and 1988 may have signalled acceptance of then prevailing pupil teacher ratios (PTRs) and therefore higher administration and instruction costs per pupil.

To better understand the shift in resource utilization during the Walker years we analyzed changes in PTRs. The simple provincial PTR average (i.e. the sum of each board PTR divided by 22) declined from 17.0 to 16.1. During the period we found that there was a slight improvement in the dispersion of school board PTRs around the mean. It can be said therefore that there was a subtle transition to uniform education spending.

Special grant requests and approvals commenced in 1986 with the introduction of minimum guarantees so that district school boards received funding at least equal to that of the prior year. The minimums presumably were provided so that the boards could adjust to limitations on financial resources over a period longer than one year.

Discretionary special grants, although small in relative terms, have more frequently been submitted to fund specific board initiatives relating to forestalling the closing of schools which would otherwise be necessary. One must ask the question whether school boards were prepared or are able to make the tough choices which accompany shrinking enrolments.

The comparative provincial data discussed earlier showed that in 1979 Nova Scotia had the second lowest PTR in Canada at 17.1 (simple Canadian average 17.9). In 1986 it was 16.4 the fourth lowest in Canada (simple Canadian average 16.8) indicating that, relative to the rest of Canada, modest progress was being achieved in adjusting professional resources to match pupil decline.

The modest progress that the Province has had in responding to enrolment declines and identifying cost effective education delivery models may relate in part to the lack of multi-year planning. Other than the enrolment decline factor, school boards do not have a feel for the direction in which they are headed fiscally. This may be due to the fact that the FRC is responsible for the annual expenditures projections. The process tends to remove a degree of responsibility from the boards for operational planning. If resource utilization targets were known, the boards would be in a better to position to adjust their operations accordingly.

VI. Formula Review Committee

Description of Mandate, Structure and Process

The mandate of the Formula Review Committee, established as a result of the Walker Commission Report, was the annual examination of funding rates for education financing and the recommendation of appropriate adjustments to the rates.

The Walker Commission suggested that education be financed by understandable, uniformly applied formulas, subject to mandatory annual review, which provide rewards for efficient management and which create a more reasonable distribution of fiscal responsibility.

In fulfilling its obligation the FRC follows a process which includes reviewing district school board submissions, projecting district school board expenditures and recommending an education tax rate applied to the updated uniform assessment, and evaluating and testing alternative funding approaches and formula variations.

The composition of the Committee has changed since it was created in 1981. Over the years it has reflected key players in the financing and delivery of education service. Before October 31, 1988 Committee membership consisted of the following representatives:

Member	Affiliation	Appointed by
Chair	Independent	Minister of Education
Member	NSTU	NSTU
Member	NSSBA	NSSBA
Member	DOE	Minister of Education
Member	UNSM	UNSM
Member	Management Board	Minister responsible for Management Board
Member	DOE	Minister of Education
Member	DMA	Minister of Municipal Affairs

In addition the FRC relies on the services of resource personnel/alternates. Alternates attend the regular meetings of the FRC and participate in an observer capacity. If the regular FRC member is unable to attend a particular meeting, the observer takes his/her place.

The FRC generally commences its annual formula review in the summer with the objective of reporting to the Minister before year end. The Walker Commission expected that accurate funding arrangements would be available in October before the following calendar year for which district school board plans were being made. Experience has shown that this timetable has not been kept and the FRC has usually reported to the Minister prior to the commencement of the Board budget year. Boards have normally received the FRC report in the latter part of the first quarter of the budget year.

The FRC holds half-day meetings about every two weeks commencing September until its report is finalized. Meeting frequency is dictated, in part, by the need to test the financial sensitivity of contemplated formula adjustments. The Committee relies extensively on the support of the Research Division of the Department of Education. Final funding formula results are dependent on updated September 30th enrolment data.

The FRC reports to the Minister of Education in writing. The report is a comprehensive document which describes the Committee's recommendations, discloses the input received from various Boards and provides detailed financial analyses by Board. The FRC Report is widely distributed. The report is personally presented to the Minister by the Chair and others on the Committee but not all the Committee members.

In the past the FRC made recommendations to the Minister independent of any financial objectives which the Province may have had. In 1988 the Province issued budgetary guidelines for use in the preparation of funding recommendations for the 1989 calendar year.

Our Views and the Views of Others

During our study we made general and specific inquiries about the FRC. We were interested in views on such matters as Committee composition, mandate, structure, and process. As expected, we received a variety of opinions, some consistent with one another and some at variance.

Mandate

There is significant support from constituents of the education community for the continuation of an FRC type body to advise the Minister on funding aspects of public education. Desirable attributes of the existing arrangement include committee independence, and the level of knowledge, familiarity and competence possessed by committee members.

There is general agreement that the FRC should not have direct influence on significant changes to the province-wide education funding sharing split between the Province and the municipalities. Most were aware that relative financial proportions of the two paying partners had not changed significantly over the period since 1982. It is strongly felt that any changes to the province-wide split should be the result of negotiations between the UNSM and the Provincial government. Most accept that the current arrangements will continue.

There is no desire to return to a funding arrangement similar to the Education Assistance Committee. There is no support for or indicated tolerance for the FRC, or any body or individual, having responsibility for the allocation of discretionary funds over those provided through the general formulas or through supplementary funding. A proviso, of course, is that the formulas are responsive to the needs of the majority of the district school boards.

It is felt by the majority, all things considered, that the FRC concept is as good as any other when determining funding levels and allocating funds to school boards.

Consideration of Budgetary Guidelines

Many believe that the FRC mandate, should be to recommend the level of education funding and subsequently its distribution to school boards while giving consideration to the Province's fiscal situation. Operating in isolation of fiscal reality is considered irresponsible. There are some who feel that the FRC was occasionally persuaded not to focus much attention on the fiscal capacity of the province when recommending funding levels.

We do not feel that the mandate of the FRC or its successor should be to recommend the level of funding for education without recognizing that the fiscal capacity of the Province is significantly constrained. Committee consideration should be given to overall budgetary guidelines. These should be articulated by Management Board before the start of committee work.

Role of the Paying Partners

Some believe that only the paying partners of public education should influence the funding recommendations which are made to the Minister. We agree with this notion and support limiting involvement on funding matters to the organizations providing the funds.

Role of the Education Deliverers

Many believe that the NSTU should not be represented on the FRC because of an inherent conflict of interest. Teachers belong to a trade union and negotiate with the Province at the bargaining table. It is felt that the NSTU should not participate in any process which involves determining the funding of education since the majority represents instructional and school administration salaries.

We agree there is an appearance of a conflict of interest. However, we conclude that the NSTU is an important and valuable contributor to the education planning process and therefore believe it should remain part of an FRC type organization. Its focus and influence, however, should not be on the financial aspects of education in the province.

Implementation of this change may not be possible since it takes away a privilege that the NSTU has enjoyed for the duration of the FRC. We understand that the NSTU would not be in favour of participating on the funding aspects of the FRC if the FRC were given budgetary guidelines.

Relationship Between Resource Utilization and Outcomes

Many believe that the education funding decision-makers in Nova Scotia (as in other parts of Canada) have insufficient information upon which to judge the merits of the cost of education relative to benefits derived by those receiving education service.

Of paramount importance, therefore, is the development and utilization of education service outcome measures to assist in guiding the allocation of resources. Linking measurable education outcomes to resource utilization will improve the likelihood of achieving equality of educational result.

We believe that there is a requirement for the deliverers of education services to assume an advisory role on education outcome measurement, monitoring and analysis. For example, they should provide the Minister with advice on the impact on education outcomes of different education delivery models now prevalent in the Province.

The NSSBA and the NSTU should focus attention on the development of systems and procedures to measure and monitor education effectiveness and outcomes. They should be advising on priorities and trends impacting the education process in this area and they should be staying abreast of new developments in education delivery.

Recommendations on Committee Mandate, Membership, Structure and Process

Two Sub-Committee System

Recognizing the need for an education outcome advisory component to the annual education funding process, it is suggested that the FRC be divided into two sub-committees. One sub-committee, education, would provide advice to the Minister on education service delivery measures and would monitor education outcomes. The other sub-committee, finance, would provide advice on the level and distribution of funding to the district school boards.

Committee Reporting

The recommendations of the sub-committees would be reported to the Minister in an integrated report. The work of the education sub-committee would serve as input to that of the finance sub-committee. The final document would represent the recommendations of the combined sub-committees and would be prepared for the signature of the chair with endorsement by individual sub-committees for their respective contributions.

Committee Membership

Members of the education sub-committee would include a representative of the NSSBA, the NSTU, and the DOE.

The finance sub-committee members would include a representative of the UNSM, the Department of Municipal Affairs, Management Board and the DOE.

Both sub-committees would receive support from the Research Division of the DOE. The concept of resource personnel - alternates would be continued.

An independent chair would sit on both sub-committees and would assume responsibility for reporting the efforts of both sub-committees to the Minister. The chair's term should be at the discretion of the Minister of Education. It would therefore be dependent on the quality and value of the recommendations brought forth by the Committee under the leadership of the chair.

Voting

Each sub-committee member would have a vote on matters pertaining to their respective sub-committee business. Resource personnel -alternates would not vote except when they were acting in the capacity of a member.

Chair

We believe that the chair should be selected on the basis of having the appropriate skills and knowledge. The individual should have patience, political sensitivity, strength and leadership. He/she need not come from the education system, nor government. The chair should have keen analytic, communication and persuasive skills.

Periods of Activity

The education sub-committee would conduct its deliberations in the first half of the year and its recommendations would provide input to the finance sub-committee. The finance sub-committee would become active in the summer and would complete its work in the late fall of the year. It is probable during the next two or three years given the size of its mandate that the education committee might meet year round. The two sub-committees would meet together at least twice each year; at the conclusion of the education sub-committee's work and on completion of the report to the Minister.

Committee Member Terms

Terms of committee member appointment should be not less than two years. Individuals selected to represent the identified interest groups should be at the discretion of the appointing bodies. With the concept of resource person - alternate continued, the understanding would be that if an interest group chose to rotate its representatives then the participant would act as an alternate for at least one year to ensure continuity.

Committee Name

To reflect its wider mandate, the Formula Review Committee should be renamed "Education and Funding Formula Review Committee".

Terms of Reference

Suggested terms of reference for each of the sub-committees are provided in Appendix 6.

Advantages

The proposed sub-committee arrangement of an independent body of informed advisors to the Minister of Education has several inherent advantages.

First, fulfilling the mandate of the education outcomes sub-committee should ultimately lead to a better allocation of financial resources in light of education system performance. Currently, there is no meaningful gauge which measures and compares resource consumption to performance achievement.

Second, the recommended process removes the probability that recommendations to the Minister will be seriously out of line with budgetary guidelines within which public education must operate. Working within established parameters will encourage the use of alternate service delivery models rather than maintenance of the status quo.

Third, the committee workload is logically divided amongst those best equipped to achieve the tasks without undue delay or compromise. The recommendations of an independent body will be realistic in the context of fiscal reality. Further, it should avoid the undesirable affects created by political lobbying and political response.

Fourth, the redirection of the influence of the NSTU and the NSSBA will have the benefit of eliminating the cynicism which many have regarding their roles on the Committee. Further, the activity to which the NSTU is encouraged to pay attention has significant potential for the organization to contribute to the underlying objective of all stakeholders in the education process, this being to provide the best education affordable to Nova Scotian pupils.

VII. Formula Design

Design Objectives

The ultimate objective of the education funding formula is to provide equal educational opportunity to all individuals served by district school boards. The formula should be shaped by the Department of Education's stated values. To achieve the objective of education accessibility, the formulas should be sensitive to the inherent differences between board service areas such as size, population dispersion and population density.

Characteristics

We reviewed the composition of the current funding formulas and discussed these with representatives of the school boards and others. We also reviewed a number of the annual school board submissions made to the FRC. Many find favour with certain aspects or features of the formulas. Others argue for change from the status quo.

Important characteristics of the current system and their impact include;

(i) one master formula,

thereby showing no bias or undue favour one board over another;

(ii) global funding for a major portion of the education grants,

thereby permitting each board latitude and flexibility in making operating decisions;

(iii) transportation funding which recognizes inherent board operating cost differences dictated by geography and dispersion of pupil population,

thereby adhering to the principle of guaranteed education access;

(iv) adjustments which signal the need to make changes to the underlying cost structure of education (enrolment decline factor),

> thereby encouraging uniformity in the educational delivery in the district school boards while observing the principle of affordability;

(v) a shared funding arrangement with local government (supplementary funding) which places some incremental revenue requirements at the discretion of the communities served by the school board,

> thereby allowing two levels of government to participate in the allocation of resources to the individual requirements of the board; and

(vi) committee based expenditure projections,

> thereby eliminating the variability in assumptions, approaches and techniques which would result if expenditure projections were developed by individual boards.

To the extent possible these features should be preserved in the development, or refinement of the formula.

Funding Formula Dynamics

Modifications to the education funding process must take note of the special dynamics which occur with the interaction of the two levels of government. It is also important to understand the relationship between the funding formula process and the resulting allocation of fiscal responsibility and the manner in which the paying partners respond to its outcome.

Under the current process there is a direct relationship between a provincial averaging process and amounts determined as supplementary, and therefore, cost shared funding. There is also a direct relationship between supplementary funding approvals and the funding sharing arrangements.

Using Averages

The current general formula (based on a provincial average) is essentially an estimate of the cost of operating a school board using certain calculated rates and selected parameters (such as student units, teacher salary indices). The extent to which a board has an actual cost structure which parallels the average cost structure of all boards in the province determines the level of cost which falls inside the estimate.

A board which is most unlike the average will find that the formula does not estimate its cost of operations as well as a board which is like the average. Halifax City and Colchester East Hants school boards are examples of boards which appear to be ill-fitting to the provincial average. Many of the district school boards find the use of provincial averages undesirable for the reason that they do not have the same cost structure as the provincial average.

The more sensitive the formula is to differences in operating cost of the boards, the better it is at estimating the board's cost of operation. It follows that actual costs of operation are less likely to fall outside the estimate and, therefore, be considered as requiring supplementary funding. Over the years the FRC has introduced adjustments and weights to the formula to improve its "estimating" capability. For example, teacher salary weightings were introduced to recognize that boards have different teacher licence mixes. By funding the mix differences, the boards are neither disadvantaged or advantaged by employing a complement of teachers which are different in mix from the provincial average.

If reducing the portion of supplementary funding is found to be a desirable strategy then increased responsiveness of the formula must be achieved through the introduction or reintroduction of weightings and adjustments. The result would be an increase in the level of expenditures which are funded under the formula and therefore on the basis of uniform assessment and provincial contribution.

However funding education in this manner has a fundamental flaw. If, through their organization and resource utilization, boards support different levels of educational opportunity in comparison one to another, then the Province is guilty of not striving for equality of educational opportunity. Further the Province would be 100% funding, beyond or below a basic level of education service, with taxes sourced from uniform assessment and provincial general revenues.

We believe that the existing funding formula approach, based purely on provincial averages, is at variance with the strategy of funding to achieve equality of educational opportunity, as would be reflected in equality of resource utilization. Funding on the basis of standard resource deployment would overcome the implicit inequities.

Supplementary Funding

We feel that reinstating the original concept of supplementary funding as an optional municipal responsibility is essential during times when the allocation of resources is becoming an ever more difficult challenge. Those who are informed are well aware that real increases in provincial (and probably municipal) education funding, if any, will be marginal at best in the foreseeable future. This arrangement gives the local rate payer the opportunity to decide whether the uniqueness of his/her school board operations or expectations are worthy of continuation in light of a provincial target.

Under current arrangements the sharing of the responsibility for supplementary funding is based on a sliding scale. The municipal share is linked to ability to pay (education tax per student unit) and is effectively dependent on assessment per student unit in the school board. The fact that supplementary funding is shared between the province and the municipal units poses some challenge in the decision making process.

Some argue that the municipalities have excessive leverage in the arrangement. Indeed municipalities have effective control of supplementary funding since, by deciding not to fund their portion, they deny the provincial share. A different perspective is that the municipalities feel blackmailed into making a contribution on supplementary funding since, by doing so, they trigger the provincial portion.

Whether supplementary funding should continue to be cost shared or whether it should be for the account of the municipalities depends on how closely one wishes to follow Walker's principle. On the surface, having education service in excess of a basic level funded 100% by the local municipalities, is appealing.

Because the municipal portion of supplementary funding is linked to ability to pay, transferring all of the Provincial portion of supplementary funding to the municipalities and offsetting this with a reduction in the education tax would not shift the burden overall between the Province and the municipalities. But it would shift the burden among the municipalities. Municipalities without any supplementary funding would benefit while the municipalities with supplementary funding would not, to the extent that the reduction in supplementary funding exceeds the reduction in the education tax rate.

The corollary is that those boards which have a lower than average ability to pay and which are now on supplementary funding benefit from drawing additional funds from the Province to support their education services. Those boards without supplementary funding and with a lower than average ability to pay are not able or willing to take advantage of the provincial sharing in supplementary funding.

For example, in 1989 the amount of supplementary grant is approximately $33,726,000, $11,684,000 of which is paid by the Province. Moving to full municipal participation would see the municipalities pick-up the Province's share assuming continuation of the enhanced education service. The additional $11,684,000 burden would have to be transferred to the Province from the education tax which is distributed throughout the province based on uniform assessment. This reduction in the education tax is estimated to be 4.8 cents per $100 of assessment.

This reduction would go directly to, say, the paying partners of Lunenburg District School Board, a board without any supplementary funding. In contrast, Digby District School Board paying partners would experience an extra 21.0 cents less the 4.8 cent reduction in education tax for a net increase of 16.2 cents. Halifax City, on the other hand, would experience an increase of 2.6 cents and receive a 4.8 cent reduction for a net decrease of 2.2 cents per $100 of assessment.

Cost shared supplementary funding is clearly a violation of the Walker notion that educational service levels in excess of a basic level should be for the account of the municipal paying partners. Moving in the direction of 100% municipal sharing on supplementary funding is desirable, on the assumption that the basic level of education services are 100% funded by the Province and the mandatory education tax.

We believe that the cost shared aspect of supplementary funding should be phased out. A five year period with a one-fifth reduction in provincial sharing each year may be appropriate to mitigate the magnitude of change which would result if it were phased out in one year. The phase out should be accompanied by a reduction in the education tax so that the Province neither gains nor loses in the transition thereby preserving the traditional sharing split between the two levels of government.

During our discussions with the school boards and the municipalities, it became clear that most were unsure of the ***nature of the expenditures*** which were being covered by supplementary grants. It is our view that the paying partners must be aware of the expenditures which they fund on a mandatory basis and on a cost shared basis.

What is Being Funded?

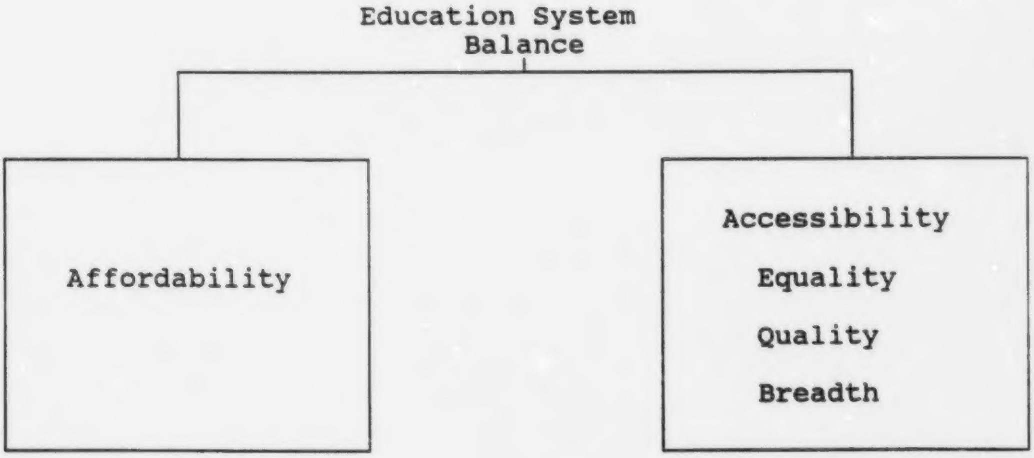
A premise of the Walker Commission with which most agree is that equality of educational opportunity will be achieved if the all those eligible have access to a basic level of education service. With the exception of elementary and junior high (P to 9), many would agree that the definition of the common array of base level educational programs has been left to the discretion of individual school boards. At the high school level there is a wide variety of course offerings addressing the needs of pupils at up to four content levels. Indeed there are a number of program offerings most would agree are standard programs which are not referenced in the Public School Program (PSP) manual (business education, home economics). Some boards have received DOE approval to offer pilot programs and these do not correspond to what could be considered the basic educational programs (Halifax City music program).

The Walker Commission believed in the concept of "municipal topping up". Local municipal units have been allowed to finance programs of a particular or unique nature in accordance with there own preferences and at their own expense. Unfortunately, education system costing has not been implemented to conveniently capture the cost of program offerings which extend beyond the PSP guidelines.

If the Province wishes to better harness the decision making power of local community leaders in education resource allocation decisions, it must be prepared to set and articulate a standard or target level of education effort. We believe that the PSP manual is as complete and as comprehensive a description of approved programs as one could want. What the Province has failed to do is set some guidelines in what overall fashion those programs ought to be delivered. To facilitate board and municipal trade-off type decision making, the Province must articulate what constitutes a basic level of education service. If local government understood which programs and services were supplementary, it would have a much better idea on how to deal with it.

Explaining the Making of Trade-offs

The DOE is guided by its five values or objectives which, in their abbreviated form, can be described as accessibility, equality, quality, breadth and affordability. In order to carry out its mandate the DOE must keep the system in balance. The affordability value is a counter balance to the other values as depicted below.



If affordability is constrained, then one or more of the other values must, too, be constrained to keep the system in balance. However the other values do not have equal priority. Accessibility and equality rank ahead of quality and breadth. Quality ranks ahead of breadth.

Accessibility is the least flexible objective. Pupils have to find themselves in the instructional setting and for most this involves walking to school or travelling on a school bus.

Just when the equality of educational opportunity objective is met is difficult to determine. Ensuring that pupils are exposed, on average, to a similar level of the instructional effort, will go towards satisfying this objective.

While we may not like it, in the face of reduced resources (affordability constraint) the level of the quality of educational services and the extent of the breadth of educational opportunities are the values which must be moderated.

In order to develop a funding formula which will protect the values of accessibility and equality while responding to the value of affordability, it must be structured so as to fund a minimum level of educational effort and, optionally, successive levels of education quality and program breadth. Educational quality and program breadth are inextricably linked to the level of teaching resources deployed. The funding formula must therefore connect enhanced levels of education quality and program breadth to teaching resources added beyond a standard level of educational effort. The standard level of educational effort must provide basic education services and achieve acceptable outcomes.

Funding Formula Based on Targets

We believe that the funding formula process can be significantly improved with the introduction of funding based on resource utilization targets. We believe that targets should be introduced for the general formula (administration and instruction, including special education), property service, transportation service and district school board administration. Funding requirements over the targeted amounts should be considered supplementary.

We do not believe that funding should be program based. Funding must have a direct linkage to the resources used in education service delivery and to the number of pupils participating. Movement towards program funding is expansionary in nature and difficult to manage and evaluate.

General Formula Funding

Under our proposed arrangement the student unit driven general funding formula, which is based on a determination of the Provincial average cost, would be replaced by a PTR based formula founded on a targeted level of education service effort. Expenditures related to education service levels in excess of the PTR targets would be considered supplementary.

For purposes of our report the PTR is defined as enrolment divided by the number of board FTEs, including regular classroom, special education, special subjects and administration. The concept is that the Province and the mandatory municipal contribution through the education tax rate would 100% fund a targeted PTR set for each board. This would not preclude a board from maintaining staff resources (FTE's; either classroom or supervisory personnel) in excess of the PTR target as long as the expenditures were supplementary funded or funded through economies achieved in other area of the global budget (property service or administrative services).

In an ideal world the PTR target would be the same for each board. Assuming common education services, homogeneity of pupil population and similar board characteristics, a province wide target might be possible.

However, achieving a desired PTR level is more difficult for those school boards which serve a small population within a large and disperse area with few schools. The permutations and combinations of pupil teacher alternatives are fewer (ie., less flexibility) than at a board serving a large population within a small compact area with many schools.

To account for the "degree of difficulty" faced by school boards in scheduling and configuring classrooms, we developed a factor which adjusts the PTR target for each board (see Table 16). We computed the factor by using three physical characteristics of the boards; viz, area served, number of schools and dispersion/concentration of pupil population. We also made an adjustment for specific distant and Acadian schools. Details of the manner in which the factor was calculated are provided in Appendix 7. Our school by school analysis indicates a reduction in the Acadian factor currently in use.

Using this "degree of difficulty" approach, each board has its own adjustment factor dependent on its geographic area, number of schools, population dispersion and concentration characteristics.

An inherent advantage using the PTR target is that it gives supplementary funding an identity. Supplementary funding will become just that; additional levels of educational quality and program breadth. Supplementary funding will be represented by a teaching complement in excess of a base level uniquely established for the board and linked to enrolment.

Setting PTR targets for individual boards could mean, depending on board response to shifts implicit in achieving a PTR target, a redistribution of the teaching effort amongst boards to meet the PTR target. ***The end result would be greater equality of educational opportunity.*** For example, a board with an actual PTR which was high relative to its PTR target might want to add teachers to a level which is comparable with its PTR target. Whereas a board with the opposite characteristics would have to convince its municipal paying partner that the level of educational effort in excess of the level fully paid by the combination of the Province and the mandatory education tax rate was worthy of continuance for the educational benefits that it provided.

Selection of a provincial PTR target should be made in light of the trends that the Province has experienced in relation to the rest of Canada. It should also give consideration to the current PTR levels in the Province. ***For purposes of illustration only***, for the 1989 year we selected a provincial PTR of 17.25 which, when adjusted for the varying degrees of difficulty in achieving the target throughout the Province, reduces to 16.9 (see Table 17).

We know of no documented evidence which demonstrates that the outcome of the education services delivered to pupils in Colchester - East Hants or Yarmouth (which historically have had high PTRs) is inferior to those outcomes achieved in boards with lower PTRs. We conclude that selecting a PTR target at or near the level achieved by these named boards produces desirable education service outcomes.

This resulting effective PTR target is judged reasonable in the context of recent Canadian PTR averages (1986). In PEI, where PTR targets have been used extensively through the 1980's, the target (exclusive of special education) is 19.3.

Our recommended PTR based general formula funding contemplates the combination of special education with regular instruction and the subsequent reduction in the family of five to a family of four. We believe that the rapid escalation of special education expenditures is the result of increased initiatives to meet the needs of special education pupils. By including special education pupils with the other pupils a single PTR resource utilization target can be established for each board. To protect against a major reallocation of special education expenditures, it may be helpful to mandate that a certain portion of the general formula funds be directed to special education.

Property Service Target

In a similar manner to the PTR target concept for school administration and instruction, we propose a targeted level of property service expenditures based on an established rate per square foot and a target level of pupil driven gross square footage. To the extent a board has excess property service expenditures beyond the level implied by the targeted gross square footage, these expenditures would be considered as requiring supplementary funding.

Transportation Service Targets

For transportation service we propose a formula similar to the one recommended for property service. In this case however we suggest establishing a rate per loaded pupil mile based on the average cost of operation of the provincial bus fleet. Loaded pupil mile data would be subject to annual verification by DOE officials. Expenditures to cover per loaded mile operating costs in excess of the provincial target (average) would be considered supplementary. These expenditures, for example, might relate to courtesy pick-up practices within the established school limit of 2 1/4 miles.

Using a loaded pupil mile rate for approved routes will assure that transportation is provided with a uniform level of financial effort and with a resulting uniform level of service. In the past the DOE based its transportation funding on a per loaded mile basis. The program met with some abuse in the definition of the loaded mile. Since this data is no longer available it will have to be gathered for use in 1991. In the interim and in consideration of the rapid rate of expenditure growth in transportation service, we suggest that the 1990 rate be increased only marginally, say 2%, above the 1989 rate.

Administrative Services

Under current arrangements administrative services expenditures (district school board management) is funded with a $400,000 flat grant for all boards. The balance of the expenditures are covered under the general formula. This approach recognizes the fixed cost behaviour of administrative overhead which is particularly important for small boards still experiencing enrolment declines.

We support the concept of being sensitive to the needs of the smallest boards. Therefore we propose a dual administrative service rate; the first, for small boards, being an enrolment driven grant based on the average cost of operation of the small boards (less than 3,200 pupils); the second, for all other boards, also being an enrolment driven grant based on the average cost of operation of boards with enrolments over 3,200.

To the extent that a board is unable to operate at or below the average of the boards in the group, these amounts will be considered supplementary. We advocate the maintenance of a $400,000 adminstration grant minimum guarantee ($420,000 in 1990) for all school boards. This grant should be indexed using the Nova Scotia CPI.

Other Formula Components

Except for school capital discussed below, we do not recommend changes to the funding formula for the "family of four" (special education to form part of the PTR based general formula), capital equipment and repairs/renovations, or capital bus purchases.

Board Revenues

We recommend continuance of the practice of including board revenues as a source of funding. There are some forms of unique fund raising activities which boards can initiate and these should not be included as part of the board revenues. For example, negotiating with the Department of Northern and Indian Affairs to establish a short term education project should go to the benefit of the board originating the idea. Under the present system the related revenues go to the benefit of the Province. After a review of those instances where boards can enhance the breadth or quality of education through their own initiatives, the funding formula process should exclude these revenues from its funding calculation so that these revenues can remain with the board. Direct costs associated with the special projects should be accounted for separately and should not influence the calculation of supplementary funding.

Basis for Expenditure Projections

Expenditure projections under the present system are difficult to develop with great accuracy because they are based on the prior year's budgeted expenditures. Committee based expenditure projections should take some direction from up to date financial information. ***We recommend that boards be required to submit, prior to the commencement of Committee work, six month interim and six month projected financial statements to serve as a second expenditure projection base.***

Impact of Recommendations

We determined the impact of our proposed changes to the funding formula using 1989 district school board allocations as a test year. We also extended our impact analysis to include 1990.

To maintain comparability with total 1989 funding levels we selected targets for each of the general formula, property service, and administration services which would yield a supplementary funding level equal to that established by the FRC. For purposes of the 1989 test year comparison we did not reflect the possible changes that would prevail if the sharing of supplementary funding were phased out over a five year period.

We made no changes to Committee estimated board revenues, transportation service, capital funding or the family of four. The effect was to provide district school boards in aggregate the same level of funding recommended by the FRC last year.

Setting a Provincial target PTR of 17.25 pupils per FTE, results in an adjusted Provincial composite of 16.9 for the test year. This compares to the indicated actual of 15.8 (167,601/10,590.4 FTEs) for 1989. We used September 30, 1988 enrolment data for purposes of the calculation.

The impact of the proposed formula is shown on Table 18. It illustrates the redistribution effects of a formula which strives to allocate funds on the basis of providing a standard level of educational effort.

Highlights of the impact are:

- *Thirteen of the twenty-one boards find that supplementary funding decreases, thus providing more of their expenditures from the general formula and less from the cost shared portion.*

- *Eight of the twenty-one boards find that supplementary funding increases, thus requiring more expenditures to be funded from the cost shared portion.*

- *Overall there is a small increase in total municipal sharing with a corresponding reduction in the Provincial share.*

- *Supplementary funding is identified as comprising*

  (i) approximately 602 FTEs employed in various boards throughout the Province: these being above the Provincial and education tax funded level of 16.9 FTEs per enroled pupil and representing $30.4 million in salary and other instructional overheads;

  (ii) approximately $3.2 million in property service expenditures directed at school property considered greater than the Provincially funded level of 113 square feet per pupil; and

  (iii) a redistribution of district school board administration expenditures between boards resulting in no overall change in total supplementary funding but impacting some boards' level of supplementary funding.

- *Four school boards are provided with an indication that additional FTEs are possible within the context of a board adjusted PTR target. These boards and the FTEs are Shelburne (17), Lunenburg (10), Yarmouth (6), and Pictou (0.6).*

- *The remaining boards are provided with the indication that they employ FTEs in excess of the adjusted PTR target and therefore require supplementary funding.*

- *The impacts on the municipal tax rate vary depending on board (see Table 19). Those boards finding it necessary to seek increases from municipal paying partners and the impact on the tax rate (cents per $100 of assessment) include:*

	Cents	*Increase %*
Clare-Argyle	*6.9*	*18.2*
Richmond	*4.6*	*11.9*
Kings	*3.2*	*8.1*
Queens	*3.3*	*8.7*
Cape Breton	*1.9*	*5.0*
Cumberland	*1.1*	*3.1*
Halifax City	*1.6*	*2.6*

- *Boards finding that there will be decreases for their municipal paying partners and the impact on tax rate (cents per $100 of assessment) include:*

	Cents	*Decrease %*
Guysborough	*4.4*	*10.3*
Halifax Co.		
Bedford	*2.8*	*6.6*
Dartmouth	*3.0*	*4.9*
Antigonish	*0.9*	*2.3*
Pictou	*0.7*	*1.8*
Annapolis	*0.5*	*1.2*

- *The recommended formula has the benefit of preserving the best attributes of the current formula, reintroducing useful concepts (weighting factors) employed in the past but replaced to simplify the process and introducing new concepts to help achieve DOE objectives.*

  One master formula is used to allocate funds to the school boards and with the exception of three factors (Acadian, distant schools and small board administration) the formula is uniform across all boards.

Since a major portion of the formula is global funding (92% as opposed to 87% under previous formula), the boards have greater operating flexibility in making trade-offs within the framework of the global budget.

The transportation formula, when sufficient data is available, will guarantee access and will fund uniform levels of service.

The difficulty index factor recognizes the unique physical characteristics of each board but deals with them on an objective and uniform basis. The concept of a resource utilization target gives supplementary funding an identity. If supplementary funding is not acceptable to municipal paying partners, boards will know to what level of resource utilization they should strive to achieve full provincial and municipal mandatory grants.

The resource utilization targets are enrolment driven thus maintaining the concept of a student decline factor which tends to constrain expenditure growth.

Using the Recommended Funding Formula in 1990

To demonstrate the impact of introducing the recommended formula for next year, we developed expenditure projections for the district school boards. We did not have access to 1989 interim financial statements from individual boards so we were unable to follow our recommended approach to projecting expenditures. We based the projections on the 1989 budget as prepared by the FRC.

Projection factors follow:

Teacher salaries	
Scale (including administration and special education)	5.43%
Increase for upgrades	0.43%

Individual experience increments (per board)	1.64% to 0.32%
with a provincial average	0.82%
All other salaries excluding driver's education, summer school, adult education	5.0%
Salaries for drivers education, summer school, adult education	4.0%
Transportation expenditures	2.0%
Other non-salary expenditures including capital equipment and repairs	4.0%
bus purchases at 10% of the approved fleet plus spares with capital cost of $45,000	

Funding formula variables follow:

General formula

Provincial PTR	17.3
Difficulty index	see Appendix 7
Adjusted enrolment	30/11/89 per DOE
Small board administration rate per enroled pupil	$191.21

Large board administration rate per enroled pupil	$147.78
Pupil Decline Factor	
To account for 1989-1990 pupil declines	actual board enrolment decline
Transportation	
Loaded mile data unavailable, funded a 2% increase over 1989 funding level	
Property service	
Rate per 114 square feet per enroled pupil	$3.46/ft
Capital debt service	actual per debt schedule
Special Grants	none
Board Revenues	
All board revenues except Provincial non-funding reimbursement	10.0%
Provincial non-funding reimbursement	6.7%

The impact of the recommended formula is shown in Table 20 (Summary of Expenditures on Public School Education and Related Sources of Funds), Table 21 (Comparison of Provincial and Municipal Funding), and Table 22 (Impact of New Formula on 1990 Effective Tax Rates). Since 1990 is the first year of the recommended five year phase out of provincial sharing in supplementary funding, we reduced, by 20%, the provincial share which would otherwise have been in effect had there been no change.

Highlights of the distribution of funds include:

Total projected expenditures	*$767,045,122*
Increase over 1989	*5.93%* *$42,959,537*
Level of supplementary funding	*$38,842,796*
Provincial 25.6%	*$9,936,944*
Municipal 74.4%	*$28,905,852*
Education tax rate	*38 cents*
Paying partner proportions	
Provincial 83.47%	
Municipal 16.53%	
Number of boards with supplementary funding	*14*

Implementation Considerations

The introduction of a revised funding formula which corrects for weaknesses identified in its predecessor will not be readily accepted by those boards receiving less than the average increase. On the other hand the formula will be well received by those boards which do better than average.

The provincial and mandatory municipal grants that have been developed using the recommended funding formula provide reasonable levels of funds for all boards to deliver a basic level of education. They fund a uniform level of educational effort as represented by an adjusted PTR target and a standard amount of space per pupil. This funding level may not be the level to which boards are accustomed to delivering without supplementary funding. Funding education services beyond the base level should be the responsibility of local government.

Boards receiving provincial operating (eg., non-capital) grants ***lower than 1989*** levels include:

	% of 1989 Grant
Halifax	92.9
Richmond	93.7
Northside-Victoria	97.5
Queens	98.0
Digby	98.3

All other boards receive provincial operating grants ***greater than 1989***. Those receiving in excess of the provincial average include:

	% of 1989 Grant
Halifax County - Bedford	111.8
Colchester East Hants	110.5
Yarmouth	109.8
Lunenburg	109.0
Pictou	108.9

The proposed formulas call for significant shifts in financial resources between the district school boards. We do not believe that these dramatic shifts are capable of being introduced over a short period of time, say one year. An orderly transition in the indicated directions is possible over, say, three to five years. This could be achieved by relaxing the PTR targets of selected school boards in the early part of the period followed by successive tightening until the desired results are achieved. To keep total expenditures in balance, an offsetting process would occur for selected school boards which anticipate greater provincial funding.

The details of fitting the formulas with what is acceptable should be left to the Funding Formula Review sub-committee (or the DOE if there is insufficient time to reconvene for the 1990 year). The funding model we have developed is totally interactive and can be easily operated by DOE research personnel.

Capital Funding

Under current arrangements capital debt service for schools is 100% financed by the Province with the exception of a residual amount (less than 1/2 of 1%) spread over 11 boards. The cost of new school construction from the school boards' perspective is only indirectly felt by the school boards as school debt costs compete annually, along with program expansion, teachers' salaries etc. for new money available within the DOE budget.

The Department of Education estimates there will be a $11.3 million increase in debt charges by 1990/91 over the year 1988/89. This increase relates to 13 projects under construction. An additional $4.3 million is anticipated in 1991/92. The rapid growth in debt relates to the number of new schools being requested and approved for the district boards. The seemingly unlimited demand relates, for all intents and purposes, to the fact that there is no direct cost to the school board for the expenditure.

To limit the demand for new school facilities and to ensure only the highest priority school projects go forward, we propose the introduction of a mandatory capital contribution by the district school board. The amount required should be based on the proportion of board operating costs funded by municipal paying partners. Implementation of this policy would have to grandfather those projects already approved (Order-in-Council). Necessary changes to the Education Act would also be required.

School boards would look to two sources for the required capital contribution. Amounts from annual school board surpluses could be set aside in capital reserve accounts until they accumulated to a sufficient level. The boards could also seek contributions from the municipal paying partners, probably in proportion to the manner in which they share supplementary funding.

Our proposal on capital funding complements our proposed changes to general formula funding. District school boards and their local paying partners will plainly see the level of expenditure which is supplementary to a base level of educational service effort. As a result, the board will be in a better position to trade-off the benefits of continued delivery of enhanced education services against capital additions.

VIII. Accountability Relationships

Accountability relationships are created through delegation of responsibility. Provincial responsibilities delegated to district school boards establish accountability relationships.

Boards are responsible for the delivery of public school education as determined by the Province. Boards are also responsible for the prudent use of resources provided by Provincial and Municipal governments. By accepting these responsibilities, boards become accountable to the Province.

Board accountability exists in two areas. They are: prudent resource management; and, effective delivery of public education.

Current Practices

Boards are not required to account for the prudent use of resources or for the effective delivery of education. Periodic examination practices are the only source of performance information. These practices are described below.

School Inspectors

School inspectors provide the Province with an ongoing assessment of school board performance. The Education Act (section 3) and its regulations (sections 2 (3)(c), and 2 (5)) empower school inspectors to periodically investigate and report on matters affecting the educational progress, health and comfort of the pupils.

Departmental Audits

Department of Education staff carry out special audits of district school boards. Normally these audits focus on classes of expenditures (ie. transportation) and/or on financial management practices. The Minister determines the nature and intensity of annual special audit coverage.

System Surveys

Department of Education staff also carry out system wide surveys. These surveys focus on the delivery of education by all schools within a district. At present, two to three surveys are conducted each year.

Provincial Testing Programs

Two types of Province wide tests are conducted annually. The Nova Scotia Standards Project tests monitor pupil performance in basic skill areas. The Nova Scotia Achievement Tests test pupil performance in more than 30 specific skill areas. Every school receives the results of these tests each year.

Auditor General for Nova Scotia

The Auditor General for Nova Scotia assesses the economy and efficiency of board operations. He plans to examine two to three Boards each year.

General Powers under the Education Act

The Education Act provides significant legislative control over Board management. Specifically it states that:

Section 3 (a)(x)
" The Governor in Council has the general supervision of public schools and education within the Province and without restricting the generality of the foregoing may make regulations for the support, conduct, operation and management of schools, institutions and services."

Section 4(k)
" The Minister may exercise general supervision and direction over public schools of the Province."

Section 4 (1)
" The Minister may require that reports and returns be made by school boards and others engaged in the management of public schools."

Our Assessment

Twenty-one different management groups (boards) are responsible for delivering our public education services. Collectively these groups manage about $725 million. It is highly improbable that the quality of management is the same for all groups.

Boards are not fully accountable for their delegated responsibilities. Existing examination practices are not a substitute for accountability. They cannot assess enough of the system with sufficient frequency. Too much of the delivery system goes unmonitored for too long. In our opinion it is essential that board accountability be significantly improved. The legislative powers already exist.

Boards should annually report their performance respecting prudent resource management and effective education delivery. A contextual framework for doing so is needed.

Recommendations

1. *Establish a new accountability framework that describes:*

- *i)* *the Minister's information requirements;*
- *ii)* *the annual reporting requirements of each Board;*
- *iii)* *the process and timetable for reporting; and,*
- *iv)* *how existing assessment practices will fit within the new framework.*

This new framework should be guided by three fundamentals. They are:

- i) the Minister needs information relevant to his responsibilities under the Education Act and as a member of the provincial Cabinet;
- ii) school boards need to know that information being requested will contribute to their own goals of good management; and,
- iii) all information required for accountability purposes must be capable of substantiation. Accountability cannot be satisfied by the general opinions or intuition of others.

2. *Expand the terms of reference of the newly named Education and Funding Formula Review Committee. Make it responsible for:*
    - *i) recommending initial accountability information requirements to the Minister;*
    - *ii) recommending modifications or amendments to the Minister's accountability information requirements; and,*
    - *iii) reviewing accountability reports and recommending, where warranted, ways of improving resource utilization and/or education delivery quality.*

Describing the Minister's accountability information needs will be a challenge. Information, in this context, must be related to prudent resource management or quality of education programs and must be capable of substantiation.

Not all boards will agree on what information is relevant. The extent of information required and the format for its presentation must be carefully considered. These obstacles can be overcome if all parties work together.

3. *We recommend that initial information requirements focus on providing reasonable assurance that:*
    - *i) physical assets are properly safeguarded;*
    - *ii) public school programs, building maintenance and pupil transportation are carried out economically and efficiently; and that,*
    - *iii) public education is being delivered effectively.*

A series of acceptable illustrations or indicators will be required to demonstrate economy, efficiency and effectiveness. It may be necessary, in some cases, to accept proxy indicators. For example, trends in a board's annual Provincial Testing Program results could serve one of the proxy measures of effectiveness.

4. *Annual information reports should provide assertions from board management that the information provided is, to the best of their knowledge, accurate and reliable.*

Board management must take responsibility for the accuracy and reliability of information provided to the Minister. For the information to have value, the Minister must be able to rely upon it.

5. ***Existing examination practices should be continued. In the future their focus should be directed toward the accuracy and reliability of information contained in board reports.***

Departmental examination practices, and the work of the Auditor General, provide needed assurance that the education system is sound. They form an essential part of the validation process and should continue. But they do not cover enough of the system each year.

Annual board reporting could promote changes in examination practices. For example, instead of surveying all aspects of two or three boards a year, portions of five or six systems could be surveyed in detail.

6. ***Implementation of the new accountability framework should commence on a pilot basis in 1990 with full implementation to occur in 1992.***

It will take time to develop appropriate accountability information. Two or three boards should participate in the development of the Minister's information requirements. These same boards should help develop and test reporting mechanisms. We expect it to take about two years to develop initial information requirements. These should be introduced to boards for the 1992 fiscal year.

Not everyone will accept the Minister's information requirements. Some will suggest that education delivery and outcomes cannot be accurately assessed. Both notions must be changed. To enhance the public school system the effectiveness of the education delivery system must be assessed annually. To maximize the utilization of over $725 million in taxpayers funds, management performance must also be assessed annually. Assessment is a board responsibility. The Minister has a need to know.

Implementation Benefits

Annual reporting by the boards will lead to improvements in the quality of education. Perhaps without a corresponding increase in the cost to taxpayers. Unless education services are measured from year to year, no one can say whether the outcomes are acceptable. If they are measured, boards can direct change, where warranted.

Annual reporting should also allow boards to substantiate the performance of their management groups. This will ultimately lead to better resource management throughout all boards. The best management practices, techniques, and solutions, in each board can be singled out for use by others.

The Minister, municipalities and the general public will benefit from greater assurance that public resources are being used wisely to achieve a desirable result.

Table 1
School Board Enrolments
As at September 30, 1988

Enrolment Range	Number of Boards	% of Boards	Number of Pupils	% of Pupils
5,000 or less	11	52%	36,497	22%
5,001 to 10,000	3	14%	21,842	13%
10,001 to 15,000	5	24%	59,970	36%
15,001 or more	2	10%	49,078	29%
Total	21	100%	167,387	100%

Note: Excludes Hantsport

Source: Department of Education

Table 2
School Board Operating Statistics
Provincial Summary

	1982	1985	1988	% Change 82 to 88
Area served (sq. miles)	20,401.3	20,401.3	20,401.3	0.0%
No. of schools	594	560	532	-10.4%
Gross sq. footage (GSF)	19,382,507	19,246,466	19,152,190	-1.2%
Enrolment	181,685	175,182	169,478	-6.7%
Student Units	203,150	194,067	187,537	-7.7%
No. of teachers	11,000	10,814	10,708	-2.7%
No. of FTE teachers	10,841	10,631	10,451	-3.6%
Average salary of teachers	30,251	38,143	40,423	33.6%
% of prov. avg.	--	--	--	
GSF per school	32,630	34,369	36,000	10.3%
% of prov. avg.	--	--	--	
Pupils per school	306	313	319	4.2%
% of prov. avg.	--	--	--	
GSF per pupil	107	110	113	5.9%
% of prov. avg.	--	--	--	
Pupil Teacher Ratio (PTR)	16.8	16.5	16.2	-3.6%
% of prov. avg.	--	--	--	
No. of Buses	--	--	1,144	--
Uniform Assessment (000s)	13,154,224	17,561,996	23,504,382	78.7%

Source: Department of Education

Table 3
Public School Operating Costs
(1979–1986)

($ millions)

	Nfld.	N.S.	N.B.	P.E.I.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1979	246	330	279	45	3,303	4,140	431	394	926	1,088	11,182
1980	272	365	307	51	3,667	4,599	473	444	1,031	1,205	12,414
1981	308	413	343	58	4,195	5,347	532	504	1,258	1,462	14,420
1982	343	468	404	65	4,202	5,692	618	626	1,526	1,709	15,653
1983	352	520	398	65	4,426	6,052	650	645	1,620	1,722	16,450
1984	386	547	433	68	4,635	6,555	704	682	1,686	1,716	17,412
1985	405	579	445	73	4,839	7,047	735	715	1,774	1,665	18,277
1986	407	601	464	76	5,039	7,595	781	729	1,904	1,765	19,361
% Change 79 to 86	65.4%	82.1%	66.3%	68.9%	52.6%	83.5%	81.2%	85.0%	105.6%	62.2%	73.1%

Note: Costs are actual, except for 1986 Nova Scotia figures which are budgeted amounts. Operating costs include administration and instructional costs as well as support service costs such as transportation. School boards in Saskatchewan, Manitoba, Nova Scotia, Ontario, Alberta (up to and including 1985), and British Columbia (up to and including 1984) use a calendar fiscal year. School boards in Quebec, New Brunswick, Newfoundland, Prince Edward Island, British Columbia (from 85/86 on), and Alberta (from 86/87 on) use a school fiscal year.

Source: The Financing of Elementary and Secondary Education in Canada (October, 1988)

Table 4
Operating Cost per Pupil
(1979–1986)

($ per Pupil)

	Nfld.	N.S.	N.B.	P.E.I.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1979	1,703	1,746	1,791	1,545	2,937	2,082	2,104	1,982	2,177	2,175
1980	1,903	1,967	2,015	1,698	3,391	2,331	2,388	2,282	2,435	2,437
1981	2,201	2,271	2,304	1,946	4,004	2,642	2,744	2,633	2,955	2,971
1982	2,499	2,610	2,741	2,241	4,079	3,129	3,244	3,328	3,554	3,520
1983	2,469	2,931	2,735	2,552	4,368	3,363	3,413	3,439	3,727	3,570
1984	2,752	3,124	3,026	2,592	4,579	3,610	3,715	3,575	3,898	3,587
1985	2,939	3,354	3,160	2,740	4,863	3,951	3,887	3,761	4,085	3,560
1986	3,019	3,517	3,273	2,947	5,090	4,237	4,146	3,804	4,355	3,779
% Change 79 to 86	77.3%	101.4%	82.7%	90.7%	73.3%	103.5%	97.1%	91.9%	100.0%	73.7%

Source: The Financing of Elementary and Secondary Education in Canada (October, 1988)

Table 5
Pupil–Teacher Ratio (PTR)
(1979–1986)

	Nfld.	N.S.	N.B.	P.E.I.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1979	18.2	17.1	20.0	18.5	14.6	18.5	17.1	18.1	18.6	17.8
1980	17.8	17.0	19.4	18.4	14.5	18.4	16.7	17.5	18.2	17.8
1981	17.6	16.8	19.1	18.3	14.4	18.1	16.6	17.3	18.0	17.3
1982	17.2	16.5	19.0	18.0	14.4	17.9	16.1	17.0	17.8	16.7
1983	16.9	16.7	19.2	18.2	14.7	17.7	15.9	16.5	17.1	17.1
1984	16.8	16.5	19.2	18.1	15.0	17.4	15.9	16.9	16.7	17.1
1985	16.6	16.4	18.9	18.0	14.9	17.2	15.6	16.7	16.7	18.1
1986	16.2	16.4	18.3	17.8	15.1	17.1	15.5	16.8	16.8	17.7
% Change 79 to 86	–11.0%	–4.1%	–8.5%	–3.8%	3.4%	–7.6%	–9.4%	–7.2%	–9.7%	–0.6%

Source: The Financing of Elementary and Secondary Education in Canada (October, 1988)

Table 6
Education Price Index
(1979–1986)

	Nfld.	N.S.	N.B.	P.E.I.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Education Price Index (1981 = 100)										
1979	83.0	81.0	80.4	82.6	82.2	81.7	79.3	80.5	79.8	79.0
1986	126.1	142.2	139.7	134.6	126.7	138.6	135.8	134.3	132.2	128.6
% Change 79 to 86	51.9%	75.6%	73.8%	63.0%	54.1%	69.6%	71.2%	66.8%	65.7%	62.8%
Salaries & Wages Sub–index (1981 = 100)										
1979	84.6	82.0	81.7	84.0	83.4	83.3	80.3	81.7	80.7	80.1
1986	124.2	143.7	141.6	135.7	124.1	139.4	136.6	133.1	131.8	127.9
% Change 79 to 86	46.8%	75.2%	73.3%	61.5%	48.8%	67.3%	70.1%	62.9%	63.3%	59.7%

Source: Statistics Canada, Catalogue 81–002 (July 1987)

Table 7
School Board Expenditures
Provincial Summary

Operating expenditures ($000s):	1982		1985		1988		% Change 82 to 88
Admin. & instruction	344,213	76.3%	432,438	76.8%	485,371	76.8%	41.0%
Property service	53,189	11.8%	60,710	10.8%	66,454	10.5%	24.9%
Transportation	26,909	6.0%	33,163	5.9%	34,123	5.4%	26.8%
Family of five	26,583	5.9%	36,599	6.5%	46,100	7.3%	73.4%
Total operating	450,894	100.0%	562,910	100.0%	632,048	100.0%	40.2%
Per Pupil:							
Admin. & instruction	1,895		2,469		2,864		51.2%
% of prov.	--		--		--		
Property service	293		347		392		33.9%
% of prov.	--		--		--		
Admin. + Property	2,187		2,815		3,256		48.9%
% of prov.	--		--		--		
All operating	2,482		3,213		3,729		50.3%
% of prov.	--		--		--		
Per GSF:							
Property service	2.74		3.15		3.47		26.4%
% of prov.	--		--		--		
Per Bus:							
Transportation	--		--		29,828		--
% of prov.	--		--		--		
Capital	41,880		45,046		57,369		37.0%
Transfer to Reserves/Surplus	10,237		1,796		2,894		-71.7%
Total	503,011		609,752		692,311		37.6%

Source: Department of Education

Table 8

Adjusted Net Surplus (Deficit) by District School Board

1982 - 1988

Board	1982	1983	1984	1985	1986	1987	1988	Total 82 to 88
Annapolis	392,422	226,690	(213,398)	(243,609)	177,821	141,019	(88,842)	392,103
Antigonish	381,646	(112,890)	240,650	(84,857)	18,047	30,371	103,638	576,605
Cape Breton	287,985	1,717,690	241,058	(291,617)	61,887	196,636	(182,643)	2,030,996
Clare-Argyle	450,076	(141,664)	(131,186)	(21,329)	141,273	93,763	(172,664)	218,269
Colchester	1,140,529	(258,412)	1,208,200	370,440	473,862	677,068	1,117,962	4,729,649
Cumberland	134,282	3,633	127,872	(115,135)	595,120	(222,716)	(37,266)	485,790
Dartmouth	532,920	(599,680)	420,145	(631,635)	702,330	467,968	(707,295)	184,753
Digby	239,753	(201,436)	(79,776)	109,203	(29,628)	10,666	85,017	133,799
Guysborough	41,973	(648)	1,953	1,538	108	(4,252)	6	40,678
Halifax City	98,414	224,787	530,539	294,305	582,216	936	1,350	1,732,547
Halifax Co-Bedford	917,716	(275,050)	(642,066)	(597,715)	617,773	475,517	(155,499)	340,676
Hants West	316,169	(108,366)	(150,595)	10,722	180,195	(14,409)	(306,771)	(73,055)
Inverness	317,768	64,899	167	(89,414)	(5,092)	17,807	(123,798)	182,337
Kings County	164,338	(52,162)	(207,425)	(130,160)	92,084	50,679	(76,086)	(158,732)
Lunenburg	525,967	42,201	57,380	(403,225)	(40,118)	302,467	(29,660)	455,012
Northside-Victoria	531,100	(420,353)	(33,807)	(125,246)	90,838	(28,761)	29,823	43,594
Pictou	1,413,635	(81,144)	(134)	(290,985)	(1,280,192)	158,183	(141,712)	(222,349)
Queens	11,585	32,750	169,961	(68,441)	(153,027)	92,386	(139,972)	(54,758)
Richmond	148,867	(100,532)	(49,481)	15,402	199,855	(90,081)	(22,417)	101,613
Shelburne	366,744	126,467	236,053	33,175	(244,787)	(54,829)	(56,939)	405,884
Yarmouth	187,975	172,152	97,919	(38,996)	134,709	92,639	147,590	793,988
Hantsport	7,671	(12,710)	19,414	(25,371)	27,215	15,429	(1,923)	29,725
Total	8,609,535	246,222	1,843,443	(2,322,950)	2,342,489	2,408,486	(758,101)	12,369,124

Note: Adjusted net surplus (deficit) includes transfers to and from reserve and surplus accounts. Source: Board financial statements.

Number of Boards With:							
Adjusted Surplus	22	9	13	7	16	16	7
Adjusted Deficit	0	13	9	15	6	6	15
Total	22	22	22	22	22	22	22

Table 9
School Board Revenues
Provincial Summary

	1982		1985		1988		*% Change 82 to 88*
Revenues ($000s):							
Provincial							
Operating	369,038	73.4%	446,842	73.3%	495,239	71.5%	34.2%
Supplementary	0	0.0%	0	0.0%	11,308	1.6%	--
Special	0	0.0%	0	0.0%	1,831	0.3%	--
Capital & other	40,542	8.1%	43,582	7.1%	51,624	7.5%	27.3%
	409,580	81.5%	490,424	80.4%	560,002	80.9%	36.7%
Municipal							
Education tax	49,492	9.8%	67,954	11.1%	86,530	12.5%	74.8%
Supplementary	30,512	6.1%	28,734	4.7%	21,430	3.1%	-29.8%
Other	360	0.1%	236	0.0%	222	0.0%	-38.3%
	80,364	16.0%	96,924	15.9%	108,182	15.6%	34.6%
Board	12,472	2.5%	18,018	3.0%	20,574	3.0%	65.0%
Reserves/ all other	227	0.0%	4,386	0.7%	3,553	0.5%	1465.2%
Total	502,643	100.0%	609,752	100.0%	692,311	100.0%	37.7%
Per Pupil:							
Prov - operating + supp	2,031		2,551		2,989		47.1%
% of prov.	--		--		--		
Mun - educ tax + supp	440		552		637		44.7%
% of prov.	--		--		--		
Board	69		103		121		76.8%
% of prov.	--		--		--		
Total	2,767		3,481		4,085		47.7%
% of prov.	--		--		--		

Source: Department of Education

Table 10
Ordinary Expenditures
Province of Nova Scotia

	1981-82	1987-88	% Change 81-82 to 87-88
Education			
Dept. of Education	420,660	615,484	46.3%
Vocational & Techincal Training	--	59,958	
Assistance to Universities	130,417	189,563	45.4%
	551,077	865,005	57.0%
Dept. of Health	537,321	927,294	72.6%
Dept. of Social Services	183,343	322,032	75.6%
All Other	845,972	1,169,274	38.2%
Total	2,117,713	3,283,605	55.1%

Source: Estimates of the Government of Nova Scotia (1983/84,1989/90)

Table 11
Comparison of Revenue Sources
(Provincial Summary, 1982–1988)

($000s)

	Actual 1982	1983	1984	1985	1986	1987	1988	% Change 82 to 88
Total Revenues	502,643	553,350	576,987	609,752	628,615	657,252	692,311	37.7%
Total Provincial Grants	409,581	447,541	468,213	490,424	501,508	531,758	560,002	36.7%
Percent of Total Revenues	81.5%	80.9%	81.1%	80.4%	79.8%	80.9%	80.9%	
Total Municipal Grants	80,364	85,679	88,593	96,924	102,994	103,491	108,182	34.6%
Percent of Total Revenues	16.0%	15.5%	15.4%	15.9%	16.4%	15.7%	15.6%	
Total Board Revenues	12,471	14,236	17,160	18,018	21,423	19,572	20,573	65.0%
Percent of Total Revenues	2.5%	2.6%	3.0%	3.0%	3.4%	3.0%	3.0%	
From Reserves/Prior Surplus	227	5,894	3,021	4,386	2,690	2,431	3,553	1465.2%
Percent of Total Revenues	0.0%	1.1%	0.5%	0.7%	0.4%	0.4%	0.5%	

Provincial grants include operating, supplementary, debt service, capital equipment repair and renovation, and emergency repair and renovation grants.

Municipal grants include education tax, supplementary, and capital grants.

Source: Department of Education

Table 12
Comparison of Provincial and Municipal Funding
(Provincial Summary, 1982–1988)

	($000s) Actual 1982	1983	1984	1985	1986	1987	1988	% Change 82 to 88
Education Tax (ET)	49,492	55,336	59,916	67,954	73,783	81,687	86,530	74.8%
Provincial Grants (PG)	409,581	447,541	468,213	490,424	501,508	522,787	548,964	34.0%
ET/(ET + PG)	10.8%	11.0%	11.3%	12.2%	12.8%	13.5%	13.6%	
PG/(ET + PG)	89.2%	89.0%	88.7%	87.8%	87.2%	86.5%	86.4%	
Municipal Supplementary	30,512	30,095	28,394	28,734	28,984	21,596	21,430	-29.8%
Municipal Other	360	248	283	236	228	208	222	-38.3%
Provincial Supplementary	--	--	--	--	--	8,971	11,308	
Total Mun/(Tot Mun + Tot Prov)	16.4%	16.1%	15.9%	16.5%	17.0%	16.3%	16.2%	
Total Prov/(Tot Mun + Tot Prov)	83.6%	83.9%	84.1%	83.5%	83.0%	83.7%	83.8%	

Source: Department of Education

Table 13
Percent Change in Uniform Assessment
1982 to 1988

Board	82 to 88 % Change
Provincial (Wtd. Average)	78.7
Annapolis	44.7
Antigonish	70.6
Cape Breton	49.2
Clare-Argyle	68.5
Colchester - East Hants	69.8
Cumberland	62.2
Dartmouth	101.7
Digby	29.5
Guysborough	49.9
Halifax City	96.5
Halifax County - Bedford	119.4
Hants West	63.3
Inverness	79.6
Kings	67.1
Lunenburg	72.7
Northside - Victoria	60.4
Pictou	46.2
Queens	45.8
Richmond	64.6
Shelburne	57.8
Yarmouth	60.9
Hantsport	37.2

Source : Department of Education

Table 14
Effective Tax Rates

District School Board	(Cents per $100 of Uniform Assessment) 1982	1988	% Change 82 to 88
Annapolis	36.8	38.0	3.3%
Antigonish	59.9	40.2	-32.9%
Cape Breton	58.9	40.2	-31.7%
Clare-Argyle	37.4	37.0	-1.1%
Colchester-East Hants	31.4	34.0	8.3%
Cumberland	48.7	39.1	-19.7%
Dartmouth	75.3	57.2	-24.0%
Digby	51.8	41.2	-20.5%
Guysborough	67.7	43.0	-36.5%
Halifax	81.8	61.1	-25.3%
Halifax County-Bedford	70.2	41.8	-40.5%
Hants West	36.9	37.0	0.3%
Inverness	84.9	38.4	-54.8%
Kings	37.2	37.9	1.9%
Lunenburg	40.5	37.0	-8.6%
Northside-Victoria	36.5	37.3	2.2%
Pictou	36.6	38.0	3.8%
Queens	37.0	40.5	9.5%
Richmond	79.8	40.1	-49.7%
Shelburne	36.5	38.2	4.7%
Yarmouth	42.6	37.0	-13.1%
Hantsport	45.8	48.7	6.3%
Provincial Total	58.7	45.9	-21.8%

Source: Department of Education

Table 15
Effective Education Tax Rates as a % of Residential Property Tax Rates
(1982 vs 1988)

DSB/Municipal Unit	1982 EETR	1982 RPTR	1982 EETR as % of RPTR	1988 EETR	1988 RPTR	1988 EETR as % of RPTR	*Increase (Decrease) 82 to 88*
Annapolis							
Annapolis County	39.0	70.0	55.7%	39.8	93.0	42.8%	-12.9%
Annapolis Royal	27.9	152.0	18.4%	27.7	169.0	16.4%	-2.0%
Bridgetown	28.1	151.0	18.6%	34.2	187.0	18.3%	-0.3%
Middleton	31.1	181.0	17.2%	30.4	189.0	16.1%	-1.1%
Antigonish							
Antigonish County	63.2	124.0	51.0%	41.1	95.0	43.3%	-7.7%
Antigonish	54.9	140.0	39.2%	38.6	100.0	38.6%	-0.6%
Cape Breton							
Cape Breton County	42.4	90.0	47.1%	35.0	89.0	39.3%	-7.8%
Dominion	53.3	222.0	24.0%	37.8	175.0	21.6%	-2.4%
Glace Bay	55.3	200.0	27.7%	41.1	203.0	20.2%	-7.4%
Louisbourg	73.5	181.0	40.6%	43.6	192.0	22.7%	-17.9%
New Waterford	40.0	199.0	20.1%	42.4	171.0	24.8%	4.7%
Sydney	80.4	198.0	40.6%	36.3	182.0	19.9%	-20.7%
Clare-Argyle							
Argyle	37.6	85.0	44.2%	37.0	73.0	50.7%	6.4%
Clare	37.2	100.0	37.2%	37.0	98.0	37.8%	0.6%
Colchester-East Hants							
Colchester County	29.9	52.0	57.5%	34.0	50.0	68.0%	10.5%
Hants East	29.3	68.0	43.1%	34.0	79.0	43.0%	-0.1%
Stewiacke	30.0	165.0	18.2%	34.0	148.0	23.0%	4.8%
Truro	35.3	156.0	22.6%	34.0	141.0	24.1%	1.5%
Cumberland							
Cumberland County	48.9	98.0	49.9%	39.1	87.0	44.9%	-5.0%
Amherst	48.8	194.0	25.2%	39.1	183.0	21.4%	-3.8%
Oxford	48.9	185.0	26.4%	39.1	178.0	22.0%	-4.5%
Parrsboro	49.7	166.0	29.9%	39.1	193.0	20.3%	-9.7%
Springhill	47.6	220.0	21.6%	39.1	220.0	17.8%	-3.9%
Dartmouth	75.3	194.8	38.7%	57.2	143.7	39.8%	1.2%
Digby							
Digby County	52.6	110.0	47.8%	41.4	119.0	34.8%	-13.0%
Digby	49.5	150.0	33.0%	40.6	177.0	22.9%	-10.1%

	1982			1988			*Increase (Decrease)*
DSB/Municipal Unit	EETR	RPTR	EETR as % of RPTR	EETR	RPTR	EETR as % of RPTR	*82 to 88*
Guysborough							
Guysborough County	69.7	119.0	58.6%	43.3	121.0	35.8%	-22.8%
St. Mary's	64.7	78.0	82.9%	42.4	85.0	49.9%	-33.1%
Canso	68.8	204.0	33.7%	42.9	193.0	22.2%	-11.5%
Mulgrave	65.9	203.0	32.5%	43.4	173.0	25.1%	-7.4%
Halifax	81.8	177.7	46.0%	61.1	128.0	47.7%	1.7%
Halifax Co.-Bedford							
Halifax County	72.2	82.0	88.0%	42.1	63.5	66.3%	-21.7%
Bedford	54.1	153.0	35.4%	39.9	131.1	30.4%	-4.9%
Hants West							
Hants West	36.6	90.0	40.7%	37.0	100.0	37.0%	-3.7%
Windsor	37.5	192.0	19.5%	37.0	207.0	17.9%	-1.7%
Inverness							
Inverness County	84.8	172.0	49.3%	38.4	144.0	26.7%	-22.6%
Port Hawkesbury	85.3	238.0	35.8%	38.4	190.0	20.2%	-15.6%
Kings							
Kings County	42.4	61.0	69.5%	41.7	62.0	67.3%	-2.3%
Berwick	23.7	121.0	19.6%	33.1	144.0	23.0%	3.4%
Kentville	24.0	132.0	18.2%	26.4	143.0	18.5%	0.3%
Wolfville	18.9	159.0	11.9%	20.7	151.0	13.7%	1.8%
Lunenburg							
Lunenburg County	41.5	75.0	55.3%	37.0	85.0	43.5%	-11.8%
Chester	39.8	68.0	58.5%	37.0	70.0	52.9%	-5.7%
Bridgewater	39.2	130.0	30.2%	37.0	140.0	26.4%	-3.7%
Lunenburg	40.4	220.0	18.4%	37.0	191.0	19.4%	1.0%
Mahone Bay	43.0	185.0	23.2%	37.0	175.0	21.1%	-2.1%
Northside-Victoria							
Cape Breton County	37.7	90.0	41.9%	37.3	89.0	41.9%	0.0%
Victoria County	34.3	116.0	29.6%	37.3	101.0	36.9%	7.4%
North Sydney	37.6	205.0	18.3%	37.3	197.0	18.9%	0.6%
Sydney Mines	37.6	172.0	21.9%	37.3	185.0	20.2%	-1.7%
Pictou							
Pictou County	35.6	57.0	62.5%	38.0	84.0	45.2%	-17.2%
New Glasgow	37.7	210.0	18.0%	38.0	215.0	17.7%	-0.3%
Pictou	37.4	232.0	16.1%	38.0	210.0	18.1%	2.0%
Stellarton	37.5	195.0	19.2%	38.0	195.0	19.5%	0.3%
Trenton	38.0	200.0	19.0%	38.0	200.0	19.0%	0.0%
Westville	37.9	185.0	20.5%	38.0	210.0	18.1%	-2.4%

DSB/Municipal Unit	1982 EETR	1982 RPTR	1982 EETR as % of RPTR	1988 EETR	1988 RPTR	1988 EETR as % of RPTR	*Increase (Decrease) 82 to 88*
Queens							
Liverpool	37.4	172.0	21.7%	38.9	199.0	19.5%	-2.2%
Queens County	36.9	62.0	59.5%	40.9	67.0	61.0%	1.5%
Richmond	79.8	135.0	59.1%	40.1	76.0	52.8%	-6.3%
Shelburne							
Shelburne County	35.8	100.0	35.8%	38.2	108.0	35.4%	-0.4%
Barrington	36.5	93.0	39.2%	38.2	90.0	42.4%	3.2%
Clark's Harbour	37.1	139.0	26.7%	38.2	158.0	24.2%	-2.5%
Lockeport	36.7	150.0	24.5%	38.2	164.0	23.3%	-1.2%
Shelburne	37.3	180.0	20.7%	38.2	176.0	21.7%	1.0%
Yarmouth							
Yarmouth County	43.0	85.0	50.6%	37.0	81.0	45.7%	-4.9%
Yarmouth	42.2	155.0	27.2%	37.0	143.0	25.9%	-1.4%
Hantsport	45.8	136.0	33.7%	48.7	181.0	26.9%	-6.8%

Note:

EETR = Effective Education Tax Rate

RPTR = Residential Property Tax Rate

Sources: Department of Education, Department of Municipal Affairs

Table 16
Calculation of Difficulty Index for School Boards

	No. of Schools	Inverse of No. of Schools	Schools Factor	Area of Board	Adjusted Area (Note 2)	Area Factor	Number Buses	Number of Buses Per 10K Students Enrolled	Bus Factor	Difficulty Index
Average per Board (Note 1)	25	0.040	1	174.0	47.91	1	55	69	1	1
Annapolis	16	0.063	1.58	208.6	54.89	1.20	40	97	1.40	2.65
Antigonish	16	0.063	1.58	115.7	35.29	0.67	46	99	1.43	1.50
Cape Breton	68	0.015	0.37	133.7	39.33	0.77	72	37	0.53	0.15
Clare-Argyle*	15	0.067	1.69	163.6	45.75	0.94	44	138	1.98	3.14
Colchester-E. Hants	44	0.023	0.57	308.9	73.68	1.78	114	87	1.25	1.28
Cumberland	26	0.038	0.97	259.6	64.67	1.49	56	89	1.28	1.86
Dartmouth	30	0.033	0.84	10.5	5.83	0.06	21	19	0.27	0.01
Digby	9	0.111	2.81	125.4	37.48	0.72	26	120	1.72	3.48
Guysborough	12	0.083	2.11	263.7	65.44	1.52	43	166	2.38	7.61
Halifax City	37	0.027	0.68	10.8	5.98	0.06	15	10	0.15	0.01
Halifax County Bedford	80	0.013	0.32	310.1	73.90	1.78	172	58	0.84	0.47
Hants West	9	0.111	2.81	104.0	32.56	0.60	33	91	1.31	2.21
Inverness*	14	0.071	1.81	232.2	59.48	1.33	48	100	1.45	3.48
Kings	22	0.045	1.15	156.4	44.24	0.90	89	82	1.18	1.22
Lunenburg	25	0.040	1.01	192.6	51.69	1.11	82	98	1.42	1.59
Northside-Victoria	29	0.034	0.87	221.4	57.39	1.27	53	73	1.05	1.17
Pictou	30	0.033	0.84	187.2	50.61	1.08	86	82	1.17	1.06
Queens	12	0.083	2.11	166.2	46.29	0.96	28	116	1.67	3.36
Richmond*	12	0.083	2.11	101.7	32.04	0.58	29	117	1.68	2.07
Shelburne	13	0.077	1.95	165.5	46.15	0.95	33	104	1.49	2.76
Yarmouth	10	0.100	2.53	59.4	21.41	0.34	33	101	1.45	1.25

Note 1 : Excludes Hantsport
Note 2: Adjusted Area = 0.75th root of Board Area

* = Francophone District
Schools, Area, and Bus Factors are shown relative to the Average per Board, where Average per Board = 1.0
Difficulty Index = Schools Factor x Area Factor x Bus Factor

Table 17

Calculation of Target PTRs for District School Boards

	September 30, 1988							
	Enrolment	Number of FTEs	Indicated PTR	Difficulty Index	Acadian Factor	Distant School Factor	Target PTR	Adjusted Target PTR
Weighting Factors				0.0188	1	1		
District School Board								
Provincial	167,601	10,590.4	15.8	1.00			17.25	16.9
Annapolis	4,116	253.1	16.3	2.65			17.25	16.4
Antigonish	4,646	284.0	16.4	1.50			17.25	16.8
Cape Breton	19,652	1,189.5	16.5	0.15			17.25	17.2
Clare-Argyle*	3,200	220.1	14.5	3.14	0.0411		17.25	15.5
Colchester-E. Hants	13,119	780.5	16.8	1.28			17.25	16.8
Cumberland	6,285	392.0	16.0	1.86		0.0099	17.25	16.5
Dartmouth	11,073	757.0	14.6	0.01			17.25	17.3
Digby	2,175	147.0	14.8	3.48		0.0554	17.25	15.2
Guysborough	2,598	178.0	14.6	7.61		0.0096	17.25	14.6
Halifax	14,396	1,083.2	13.3	0.01			17.25	17.3
Halifax County-Bedford	29,426	1,802.9	16.3	0.47		0.0004	17.25	17.1
Hants West	3,615	221.1	16.4	2.21			17.25	16.5
Inverness*	4,780	308.5	15.5	3.48	0.0275	0.0016	17.25	15.6
Kings	10,835	692.1	15.7	1.22			17.25	16.9
Lunenburg	8,326	488.6	17.0	1.59		0.0019	17.25	16.7
Northside-Victoria	7,231	443.0	16.3	1.17			17.25	16.9
Pictou	10,547	624.3	16.9	1.06		0.0020	17.25	16.9
Queens	2,413	158.2	15.3	3.36			17.25	16.2
Richmond*	2,489	184.0	13.5	2.07	0.0601	0.0083	17.25	15.4
Shelburne	3,182	177.6	17.9	2.76			17.25	16.4
Yarmouth	3,283	189.3	17.3	1.25			17.25	16.9

Sample Calculation:

Digby: Adjusted PTR = Provincial Target PTR (17.25) less Adjustment.

Adjustment = Difficulty Index (3.48) X Weighting Factor (.0188) X Provincial Target PTR (17.25)
+ Distant School Factor (.0554) X Provincial PTR (17.25)

Adjusted PTR = 17.25 - 1.13 - 0.96 = 15.16 or 15.2

* = Francophone school board

Table 18
Calculation of Supplementary Funding for District School Boards and Impact on Municipal Tax Rate If Implemented in 1989

	1989 - New Formula					1989 - Budget							
Board	Number FTEs Exceeding (Below) Adjusted Target	Salary Weighted Expenditure Including Other Expenditures	Property Service Expenditures Exceeding Target	Administrative Expenditures Exceeding Target	Total Supplementary Funding	1989 Supplementary Funding	1989 Provincial Share	1989 Municipal Share	Impact on Supplementary Funding (Increase) Decrease	Additional (Reduced) Municipal Tax	Uniform Assessment (000s)	Impact on Tax Rate Increase (Decrease) (Cents per $100) (Note 1)	Impact on Province (Increase) Decrease ($)
Annapolis	2.1	103,591	178,811	100,703	383,105	483,593	362,695	120,898	100,488	(25,122)	525,192	(0.5)	(75,366)
Antigonish	7.0	354,424	(76,257)	(108,388)	169,779	483,557	435,201	48,356	313,778	(31,378)	386,185	(0.8)	(282,400)
Cape Breton	47.6	2,479,825	190,724	(326,758)	2,343,791	0	0	0	(2,343,791)	351,569	1,809,183	1.9	1,992,222
Clare-Argyle*	14.1	687,101	125,668	93,427	906,196	0	0	0	(906,196)	271,859	395,091	6.9	634,337
Colchester-E. Hants	1.7	81,503	272,640	(355,720)	(1,576)	0	0	0	1,576	0	1,484,175	0.0	(1,576)
Cumberland	10.7	506,793	185,732	20,239	712,764	227,158	193,084	34,074	(485,606)	72,841	636,229	1.1	412,765
Dartmouth	115.3	5,572,027	306,101	403,618	6,281,747	7,205,571	720,557	6,485,014	923,824	(831,442)	2,784,100	(3.0)	(92,382)
Digby	3.6	174,057	94,147	60,779	328,982	530,381	450,824	79,557	201,399	(30,210)	214,969	(1.4)	(171,189)
Guysborough	0.4	16,992	52,892	(30,410)	39,474	949,527	854,574	94,953	910,053	(91,005)	206,046	(4.4)	(819,047)
Halifax	249.0	12,935,804	1,652,748	868,527	15,457,080	14,441,753	1,444,175	12,997,578	(1,015,327)	913,794	5,579,108	1.6	101,533
Halifax Co-Bedford	81.9	4,046,302	(563,958)	(920,557)	2,561,787	6,673,592	5,005,194	1,668,398	4,111,805	(1,027,951)	3,624,954	(2.8)	(3,083,853)
Hants West	2.6	125,520	4,958	(60,576)	69,902	87,267	74,177	13,090	17,365	(2,605)	344,104	(0.1)	(14,760)
Inverness*	2.6	131,756	231,155	58,758	421,670	619,317	557,385	61,932	197,647	(19,765)	378,905	(0.5)	(177,882)
Kings	49.6	2,520,930	346,707	12,148	2,879,785	887,425	665,569	221,856	(1,992,360)	498,090	1,561,515	3.2	1,494,270
Lunenburg	(9.6)	(460,394)	(179,438)	(23,129)	(662,960)	0	0	0	662,960	0	1,276,013	0.0	(662,960)
Northside-Victoria	14.6	743,891	168,386	70,614	982,892	0	0	0	(982,892)	98,289	571,183	1.7	884,603
Pictou	(0.6)	(28,453)	55,781	260,519	287,847	824,664	700,964	123,700	536,817	(80,522)	1,098,031	(0.7)	(456,294)
Queens	9.0	407,391	18,009	(61,969)	363,431	0	0	0	(363,431)	127,201	381,019	3.3	236,230
Richmond*	22.5	1,139,749	222,945	121,456	1,484,150	223,881	201,493	22,388	(1,260,269)	126,027	272,328	4.6	1,134,242
Shelburne	(16.9)	(849,162)	(59,689)	(22,487)	(931,338)	0	0	0	931,338	0	380,505	0.0	(931,338)
Yarmouth	(5.5)	(270,564)	(15,484)	(160,797)	(446,844)	0	0	0	446,844	0	428,448	0.0	(446,844)
Total (excl Hantsport)	601.6	30,419,084	3,212,581	(0)	33,631,664	33,637,686	11,665,892	21,971,794	6,022	319,670	24,337,280	0.1	(325,692)

Note 1: Impact on tax rate refers to the overall impact on all municipal paying partners within a district school board. Because of different education funding sharing arrangements among municipalities, the impact on the tax rates of individual municipalities may vary.

* Francophone school board

Table 19
Impact of New Formula on 1989 Effective Tax Rates

Board	Exisiting 1989 ETR	New Formula 1989 ETR	% Change
Annapolis	40.3	39.8	-1.2%
Antigonish	39.3	38.4	-2.3%
Cape Breton	38.0	39.9	5.0%
Clare-Argyle*	38.0	44.9	18.2%
Colchester-E. Hants	38.0	38.0	0.0%
Cumberland	38.5	39.7	3.1%
Dartmouth	61.3	58.3	-4.9%
Digby	41.7	40.3	-3.4%
Guysborough	42.6	38.2	-10.3%
Halifax	61.3	62.9	2.6%
Halifax County-Bedford	42.6	39.8	-6.6%
Hants West	38.4	38.3	-0.3%
Inverness*	39.6	39.1	-1.3%
Kings	39.4	42.6	8.1%
Lunenburg	38.0	38.0	0.0%
Northside-Victoria	38.0	39.7	4.5%
Pictou	39.1	38.4	-1.8%
Queens	38.0	41.3	8.7%
Richmond*	38.8	43.4	11.9%
Shelburne	38.0	38.0	0.0%
Yarmouth	38.0	38.0	0.0%

* = Francophone school board

Table 20
Summary of Expenditures on Public School Education and Related Sources of Funds

	1989	Budget	1990	Budget	Increase/(Decrease)	
	Amount	% of Total	Amount	% of Total	Amount	% Change
Expenditures						
Operating Expenditures	662,916,912	91.55	702,723,736	91.61	39,806,824	6.00
Capital Debt Service	44,071,415	6.09	47,335,120	6.17	3,263,705	7.41
Capital Equipment & Repairs/Renovations	11,802,659	1.63	12,274,765	1.60	472,106	4.00
Capital Bus Purchases	4,451,265	0.61	4,711,500	0.61	260,235	5.85
Emergency Capital	465,500	0.06	0	0.00	(465,500)	(100.00)
To Reserves and Surplus	377,834	0.05	0	0.00	(377,834)	(100.00)
Total Expenditures	724,085,585	100.00	767,045,122	100.00	42,959,537	5.93
Revenues						
Provincial Grants Operating	519,937,832	71.81	556,872,382	72.03	36,934,550	7.10
Provincial Supplementary	10,290,025	1.42	9,936,944	1.29	(353,081)	(3.43)
Capital Debt Service	43,853,522	6.06	47,335,120	6.12	3,481,598	7.94
Capital Equipment & Repairs/renovations	8,681,072	1.20	8,785,507	1.14	104,435	1.20
Emergency Capital	465,500	0.06	0	0.00	(465,500)	(100.00)
Capital Bus Grant	4,479,840	0.62	4,711,500	0.61	231,660	5.17
Total Provincial Grants	587,707,791	81.17	627,641,453	81.18	39,933,662	6.79
Municipal Contributions						
Education Tax	92,365,761	12.76	95,166,649	12.31	2,800,888	3.03
Supplementary Municipal Grant	22,281,918	3.08	28,905,852	3.74	6,623,934	29.73
Capital Debt service	202,387	0.03	202,387	0.03	0	0.00
Other Capital	0	0.00	0	0.00	0	
Total Municipal Contributions	114,850,066	15.86	124,274,887	16.07	9,424,821	8.21
Other Revenues						
Board Operations	11,724,034	1.62	12,896,437	1.67	1,172,403	10.00
Federal Sources (DND, DIAND)	3,977,452	0.55	4,375,197	0.57	397,745	10.00
Minority Official Language (FED, PROV)	3,456,647	0.48	3,802,312	0.49	345,665	10.00
Provincial Non-Funding Reimbursement	135,552	0.02	144,525	0.02	8,973	6.62
From Reserves and Prior Surplus	2,234,043	0.31	0	0.00	(2,234,043)	(100.00)
Total Other Revenues	21,527,728	2.97	21,218,471	2.74	(309,257)	(1.44)
Total Revenues	724,085,585	100.00	773,134,812	100.00	49,049,227	6.77
Surplus	22,986		6,089,690		6,066,704	
Net Total	724,062,599		767,045,122	99.21	42,982,523	5.94

Table 21
Comparison of Provincial and Municipal Funding
1989 vs 1990

	Provincial Operating Funding			Municipal Operating Funding									Total Operating Funding		
				1989 Budgeted				1990 Estimated							
District School Board	1989 Budget	1990 Budget	% of 1989	Education Tax	Supplement Municipal	From Reserves	Total Contribution	Education Tax	Supplement Municipal	From (To) Reserves	Total Contribution	% of 1989	Total 1989	Total 1990	% of 1989
Annapolis	13,482,576	14,129,839	104.80	1,995,732	120,926	255,955	2,372,613	2,057,937	180,928	0	2,238,865	94.36	15,855,189	16,368,704	103.24
Antigonish	15,568,445	16,571,481	106.44	1,467,501	48,395		1,515,896	1,517,305	11,378	0	1,528,683	100.84	17,084,341	18,100,164	105.95
Cape Breton	64,625,234	66,134,103	102.33	6,874,896			6,874,896	7,017,639	739,220	0	7,756,859	112.83	71,500,130	73,890,962	103.34
Clare-Argyle	11,254,620	12,089,271	107.42	1,501,344		44,829	1,546,173	1,536,912	0	(104,946)	1,431,966	92.61	12,800,793	13,521,238	105.63
Colchester East Hants	41,024,032	45,333,537	110.50	5,343,029			5,343,029	5,694,183	0	(1,824,933)	3,869,250	72.42	46,367,061	49,202,787	106.12
Cumberland	20,797,408	20,981,430	100.88	2,417,670	89,360	246,958	2,753,988	2,473,009	461,478	0	2,934,487	106.55	23,551,396	23,915,917	101.55
Dartmouth	29,042,958	30,790,194	106.02	10,579,800	5,654,100	466,694	16,700,594	10,747,386	6,173,629	(0)	16,921,014	101.32	45,743,552	47,711,208	104.30
Digby	8,062,966	7,921,571	98.25	816,848	79,554	49,071	945,473	824,198	225,385	0	1,049,583	111.01	9,008,439	8,971,153	99.59
Guysborough	10,487,234	10,919,900	104.13	782,975	94,912		877,887	804,496	100,154	0	904,650	103.05	11,365,121	11,824,550	104.04
Halifax	35,225,643	32,725,792	92.90	21,200,609	13,978,159	1,350	35,180,118	21,375,194	19,001,163	0	40,376,357	114.77	70,405,761	73,102,149	103.83
Halifax County - Bedford	92,465,634	103,374,701	111.80	13,774,825	1,664,238	489,662	15,928,725	14,616,323	0	(2,881,040)	11,735,283	73.67	108,394,359	115,109,983	106.20
Hants West	11,931,260	12,732,690	106.72	1,307,593	13,049	66,360	1,387,002	1,343,884	0	(9,288)	1,334,597	96.22	13,318,262	14,067,288	105.62
Inverness	17,837,907	17,910,042	100.40	1,439,838	61,963	51,784	1,553,585	1,459,835	327,507	0	1,787,343	115.05	19,391,492	19,697,384	101.58
Kings	36,579,064	38,107,982	104.18	6,114,700	262,542	123,686	6,500,928	6,206,773	495,882	0	6,702,655	103.10	43,079,992	44,810,636	104.02
Lunenburg	24,652,930	26,874,644	109.01	4,848,851		283,978	5,132,829	4,944,267	0	(244,787)	4,699,480	91.56	29,785,758	31,574,124	106.00
Northside-Victoria	25,804,280	25,160,047	97.50	2,170,494		22,837	2,193,331	2,234,151	583,345	0	2,817,496	128.46	27,997,611	27,977,542	99.93
Pictou	33,476,954	36,445,728	108.87	4,172,516	123,651		4,296,167	4,289,527	0	(728,301)	3,561,226	82.89	37,773,121	40,006,954	105.91
Queens	7,643,691	7,488,317	97.97	1,447,873	36,635	30,137	1,514,645	1,482,006	310,896	0	1,792,902	118.37	9,158,336	9,281,218	101.34
Richmond	9,833,310	9,217,279	93.74	1,034,845	54,414		1,089,259	1,328,351	274,465	0	1,602,817	147.15	10,922,569	10,820,096	99.06
Shelburne	10,164,359	10,694,313	105.21	1,445,919		100,562	1,546,481	1,487,721	20,424	0	1,508,145	97.52	11,710,840	12,202,458	104.20
Yarmouth	10,267,354	11,269,525	109.76	1,628,103			1,628,103	1,725,549	0	(296,395)	1,429,154	87.78	11,895,457	12,698,679	106.75
Total	530,227,857	556,872,382	105.03	92,365,761	22,281,918	2,234,043	116,881,722	95,166,649	28,905,852	(6,089,690)	117,982,811	100.94	647,109,579	674,855,192	104.29

Table 22
Impact of New Formula On 1990 Effective Tax Rates

Board	Budget 1989 ETR	New Formula 1990 ETR	1990 vs 1989 % change
Annapolis	40.3	41.3	2.5%
Antigonish	39.3	38.3	-2.5%
Cape Breton	38.0	42.0	10.5%
Clare-Argyle	38.0	38.0	0.0%
Colchester East Hants	38.0	38.0	0.0%
Cumberland	38.5	45.1	17.1%
Dartmouth	61.3	59.8	-2.4%
Digby	41.7	48.4	16.1%
Guysborough	42.6	42.7	0.2%
Halifax	61.3	71.8	17.1%
Halifax County - Bedford	42.6	38.0	-10.8%
Hants West	38.4	38.0	-1.0%
Inverness	39.6	46.5	17.4%
Kings	39.4	41.0	4.1%
Lunenburg	38.0	38.0	0.0%
Northside-Victoria	38.0	47.9	26.1%
Pictou	39.1	38.0	-2.8%
Queens	38.0	46.0	21.1%
Richmond	38.8	45.9	18.3%
Shelburne	38.0	38.5	1.3%
Yarmouth	38.0	38.0	0.0%

APPENDIX 1

LIST OF INTERVIEWEES

District School Boards

Cape Breton
Richmond
Guysborough
Colchester-East Hants
Halifax-City
Halifax County-Bedford
Lunenburg
Digby

Municipalities

Municipality of the County of Queens
City of Dartmouth
Municipality of the County of Cumberland
Town of New Glasgow
Town of Kentville

Associations

Nova Scotia Teachers Union (NSTU)
Nova Scotia School Boards Association (NSSBA)
Union of Nova Scotia Municipalities (UNSSM)

Formula Review Committee Members (Current and Past)

George Walker
John Levangie
Ed Cramm
Robert Haines
David Driscoll
Karen Willis Duerden
Robert Fowler
Joseph Wadden

Department of Education Officials

Blenis Nicholson, Deputy Minister

Gerri Masters, Senior Policy Advisor & Assistant to Deputy Minister

Doug Nauss, Director of School Planning and Conveyance

Richard Morris, Director of Public Education Grants & Finance

LaJune Naud, Director of Curriculum Development

Dennis Pilkey, Co-ordinator Management Information Systems (MIS)

Bette Kelly, Director Research

Cabinet Ministers

Honourable Ronald C. Giffen, Minister of Education

Honourable Terrence R.B. Donahoe, Q.C., Chairman, Management Board

Honourable Greg Kerr, Minister of Finance

APPENDIX 2

DISTRICT SCHOOL BOARD
AND
MUNICIPALITY
QUESTIONNAIRES

DOANE RAYMOND MANAGEMENT CONSULTANTS
FORMULA REVIEW COMMITTEE STUDY

QUESTIONS FOR SELECTED DISTRICT SCHOOL BOARDS

1. Should the NSSBA be represented on the Formula Review Committee (FRC)?

   (a) If yes, how many, how appointed, what term?
   (b) Should it be a voting member?

2. What should the FRC mandate be?

   - projecting expenditures
   - determining formulas and rates
   - allocating financial responsibility between parties
   - recommending policies and standards
   - authorizing special funding

3. Should a cap be placed on province wide education funding?

4. Are the amounts provided by the formulas sufficient and reasonable for your Board?

5. Should the government continue to base funding decisions on advice from the FRC or a similar Committee? If not, how?

6. Do the formulas distribute funds equitably and fairly to all Boards?

7. Do formulas encourage sound resource management within the Board?

8. Are user fees for property services and the like set on full cost recovery basis?

9. Would multi-year funding approval improve your long range planning capabilities? Is there a need for it?

10. Should there be an independent body to address funding requests from Boards for funding beyond that provided by the Formulas?

11. Is the process for establishing capital budgets and for obtaining capital funding approval appropriate? fair/reasonable? equitable?

12. What unique attributes do you believe set your Board apart from all others? (some others)? Do these impact on costs and are they compensated for in the existing formulas?

13. Have you experienced any funding short-falls in the past two years? How did it happen, and what did you do about it?

14. Have you had funding difficulties? If so, how did (are you going to) resolve them?

15. Have you made any special funding requests in the past year? If so, what was the nature of request and its disposition?

16. Do you believe that the factors used in the formulas are appropriate? If not, what would you change and how?

17. What impact do you envisage "Department of Education's secondary school curriculum modifications" having on your costs of education delivery in the future?

18. Do you support the notion of an 87/13 split (Province/Municipality) in funding responsibilities?

19. Is the present year end for your Board appropriate or inappropriate? Does it affect funding? Would you recommend a change? What problems would you likely encounter by a change in year ends?

20. What reporting (accountability) relationships exists between your Board and the Province and/or the Municipal Units (i.e. submission of budgets, operation plans, performance reports, financial reports and the like) or (inspection/evaluation rights provided to Province/Municipality)?

    Are they appropriate? How would you change them?

21. What is the single largest issue facing your Board today?

DOANE RAYMOND MANAGEMENT CONSULTANTS

FORMULA REVIEW COMMITTEE STUDY

QUESTIONS FOR SELECTED MUNICIPALITIES

1. Should UNSM be represented on the Formula Review Committee (FRC)?

   (a) How many, how appointed, and what term should representatives hold?

   (b) Should all members of the Committee vote?

   (c) Would your answer change if the Municipal Unit were no longer required to fund any portion of education costs?

2. What should the FRC mandate be?

   - projecting expenditures
   - determining formulas and rates
   - allocating Financial responsibility between parties
   - recommending policies and standards
   - authorizing special funding

3. Should a cap be placed on Education Funding?

   - Provincial/Municipal contributions
   - Municipal contribution
   - Provincial contribution

4. What authority do you presently have regarding:

   - the funding of education in your district?
   - the level of education in your district?
   - the quality of education in your district?

5. Are the amounts provided by the formulas to your district board sufficient and reasonable?

6. Do the formulas distribute funds equitably and fairly to all district boards?

7. Do formulas encourage sound management of resources at your district board?

8. Is the present year end for your district board appropriate or inappropriate, in relation to the Council decision making (budget) process?

9. Should funding be approved on a multi-year basis in order to improve district board long range planning?

10. Do you support the notion of an 87/13 split (Provincial/Municipal) in funding responsibility?

11. Should there be an independent body to address funding requests from boards (e.g. appeals) for funding beyond that provided by the formulas?

12. What reporting (accountability) relationship exists to your Municipal Unit from the district board (i.e. is it appropriate? budgets, operations plans, performance reports, financial reports, etc).

    What is the desired level of accountability?

13. What is the single largest issue facing your Municipality today in respect of education?

APPENDIX 3

LIST OF DOCUMENTS REVIEWED

District School Board submissions to the Formula Review Committee (1988 and 1989)

Annual Reports of the Formula Review Committee (1981 - 1988)

Report of the Commission on Public Education Finance, 1981 ("Walker Commission Report")

Various Statistical Reports and Data, Research Division, Department of Education

Education Act and Regulations

Annual Reports, Department of Education (1980 - 1987)

Report of the Advisory Committee on the Public School Program (March, 1989)

The Financing of Elementary and Secondary Education in Canada (Council of Ministers of Education, October, 1988)

Public School Programs (1988-89,1989-90), Department of Education

Statistics Canada, Catalogue 81-002 (October, 1987)

Northside-Victoria District School Board Survey Report (1985), Department of Education

Cumberland District School Board Review Report (1988), Department of Education

Estimates of the Government of Nova Scotia, 1982-83 to 1989-90

Report of the Committee on School Funding, June, 1989

APPENDIX 4

SUMMARY OF MAJOR CHANGES TO GENERAL FORMULA, PROPERTY SERVICE, TRANSPORTATION, AND SUPPLEMENTARY GRANTS (1982 - 1988)

1. General Formula Grant

1982	$1,575 per student unit Plus: 5% adjustment for Francophone districts Less: education tax (.38/$100)
1983	$1,780 per student unit Plus: 5% adjustment for Francophone districts Less: education tax (.40/$100)
1984	$1,860 per student unit Plus: 5% adjustment (of unweighted GFF) for Francophone districts Plus: Salary weighting factor (for boards with teachers' salary costs greater than the provincial average) Plus: Rural weighting factors (Guysborough, Inverness, Richmond, and Cumberland Less: education tax (.42/$100)
1985	$2,000 per student unit Plus: 5% adjustment for Francophone districts Plus: Salary weighting factor Plus: Rural weighting factors Less: education tax (.39/$100)

1986	$1,930 per student unit (Reduced from 1985 amount to offset increased costs resulting from new salary weighting factor) Plus: 5% adjustment for Francophone districts Plus: New salary weighting factor (applied to all boards which incur salary costs greater than the board with the lowest average salary cost) Plus: Rural weighting factors (weights increased for Guysborough and Cumberland; decreased for Richmond; weighting for Inverness dropped) Plus: Small school board weighting factor for school boards with enrolments of less than 5,000 Less: education tax (.41/$100)
1987	$2,068 per student unit Plus: 5% adjustment for Francophone districts Plus: Salary weighting factor Less: education tax (.44/$100)
1988	$2,135 per student unit Plus: 5% adjustment for Francophone districts Plus: Salary weighting factor Plus: $200,000 for district board management Less: education tax (.37/$100)

2. Property Service Grant

1982	$126 per student unit plus $1.30 per GSF (formula results in property service costs distributed equally between student units and GSF). GSF is based on the outside measurements of all buildings used for full-time instruction
1983	$140 per student unit plus $1.40 per GSF
1984	$147 per student unit plus $1.47 per GSF
1985	$150 per student unit plus $1.48 per GSF
1986	$158 per student unit plus $1.55 per GSF
1987	$165 per student unit plus $1.65 per GSF
1988	$168 per student unit plus $1.77 per GSF

3. Transportation Grant

1982	90% of 118% of 1981 transportation costs
1983	Basic: $215 x wtd. eligible students x density dist. Plus: -Auxiliary (extra-curricular): $2.75 x two-year avg. total enrolment -Capital (bus replacement): $36 x eligible elementary and secondary students -Debt (existing bus debt): Debt service less 25% of capital replacement grant
1984	Basic: $225 x wtd. eligible students x density dist. Plus: -Auxiliary (extra-curricular): $2.87 x two-year avg. total enrolment -Capital (bus replacement): $38 x eligible elementary and secondary students -Debt (existing bus debt): Debt service less 25% of capital replacement grant

1985	Basic: $230 x wtd. eligible students x density dist. Plus: -Auxiliary (extra-curricular): $2.50 x two-year avg. total enrolment -Capital (bus replacement): $42 x eligible elementary and secondary students -Debt (existing bus debt): Debt service less 25% of capital replacement grant
1986	Operating grant: ($162 x eligible students weighted by school drawing area factor and density distribution) Plus: -Capital (bus replacement): $39 x eligible elementary and secondary students -Debt (existing bus debt): Debt service less 25% of capital replacement grant
1987	Operating: 100% of projected operating expenses Plus: -Capital: $4150 per approved bus -Debt (existing bus debt): Debt service less 25% of capital replacement grant
1988	Operating: 100% of projected operating expenses Plus: -Capital: $4200 per approved bus

4. Supplementary Grants

1987 and
1988

Supplementary funding is the amount by which DOE projected board expenditures exceed DOE projected revenues. Provincial and municipal cost sharing of supplementary funding is based on the following:

Education Tax per Student Unit	Provincial Share(%)	Municipal Share (%)
Under $300	90	10
300 - 349	85	15
350 - 399	80	20
400 - 449	75	25
450 - 499	70	30
500 - 549	65	35
550 - 599	40	60
600 - 649	30	70
650 - 699	20	80
700+	10	90

Note:

1. From 1982 to 1987, student units were based on the the greater of:

   (a) the average of student enrolments for the most recent and preceding school years, or
   (b) the student enrolment for the most recent school year.

   Beginning in 1989, student units are based on the greater of:

   (a) the average of student enrolments for the two school years preceding the most recent school year, or
   (b) the student enrolment (units) for the most recent school year.

2. The calcualtion of student units is based on the following weightings:

	82	83	84	85	86	87	88
Elem.	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Jr. High	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Sr. High	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Voc.	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Int. Ind.	-	-	-	1.75	1.75	1.75	1.75
Bus.	-	-	-	2.5	2.5	2.5	2.5

3. Teachers' salaries account for 90%+ costs covered by general formula funding. For 1983 through 1986, projected expenditures were adjusted downward by the enrolment decline factor. This adjustment assumed that total salary costs decrease at the same percentage as enrolment. Beginning in 1987, however, the FRC agreed that projected expenditures should not be adjusted downward by the enrolment decline factor because "...the continued use of this practice can cause unrealistic reductions in projections of expenditures."

APPENDIX 5

SUMMARY OF SPECIAL GRANTS

SUMMARY OF SPECIAL GRANTS

Year	Board	Amount
1985	(see note below)	(see note below)
1986	Annapolis	65,184
	Halifax City	216,778
	Hantsport	50,000
	Lunenburg	245,334
	Northside/Victoria	42,135
	Shelburne	36,312
		$655,743
1987	Digby	59,028
	Northside/Victoria	43,760
		$102,788
1988	Annapolis	15,220
	Digby	323,500
	Halifax City	1,469,135
	Hants West	95,434
	Kings	50,589
	Northside/Victoria	18,500
	Pictou	5,000
		$1,977,378
1989	Cumberland	293,000
	Halifax City	572,999
	Inverness	20,265
	Kings	325,906
	Queens	110,000
	Richmond	94,800
		$1,416,970

Note:

With respect to 1985 there were some minimum guarantees paid to some Boards, as a result of declining enrolments and large increases in assessment. However, payment of these guarantees were built into the system and were not segregated as Special Grants.

There were no Special Grants from 1981 to 1984.

Discretionary Special Grants are marked with an "*" on the following pages.

SPECIAL GRANTS TO SCHOOL BOARDS

1986

DSB	AMOUNT	EXPLANATION
Annapolis	65,184	Adjustment to the 1986 funding formula so the provincial operating grant to each District School Board would be increased by at least 1% over the 1985 provincial grant (copy of correspondence not available).
Halifax City	216,778	Adjustment to the 1986 funding formula so the provincial operating grant to each District School Board would be increased by at least 1% over the 19895 provincial grant (copy of correspondence not available).
Hantsport	50,000	To provide an additional grant to the Hantsport School system so they would be funded on the same basis as schools that are under the jurisdiction of a district school board.
Lunenburg	245,334	Adjustment to the 1986 funding formula so the provincial operating grant to each District School Board would be increased by at least 1% over the 1986 provincial grant (copy of correspondence not available).

DSB	AMOUNT	EXPLANATION
Northside/Victoria	17,000	To enable the Board to operate the Bloisdale School for the 1986/87 school term.
	25,135	Property service grant designated to the Board to be made available to the Northside Pool Society to assist in maintaining the pool for student use.
Total	$ 42,135*	
Shelburne	36,312	Adjustment to the 1986 funding formula so the provincial operating grant to each District School Board would be increased by at least 1% over the provincial grant paid in 1985.
Total 1986 Special Grants	$655,743	

SPECIAL GRANTS TO SCHOOL BOARDS

1987

DSB	AMOUNT	EXPLANATION
Digby DSB	12,500*	5/12 of a $30,000 grant to retain the third teaching position at the Westport School for the 1987/88 academic year.
	46,258	New projections if revenue, in addition to an increase in student units, resulted in an increase in provincial grants.
Total	$ 59,028	
Northside/Victoria	17,000	To enable the Board to operate the Bloisdale School for the 1987/88 school term.
	26,760	Property service grant designated to the Board to be made available to the Northside Pool Society to assist in maintaining the pool for school use. (see 1986 correspondence)
Total	$ 43,760*	
Total 1987 Special Grants	**$102,788**	

SPECIAL GRANTS TO SCHOOL BOARDS

1988

DSB	AMOUNT	EXPLANATION
Annapolis DSB	15,220	Square footage re-assessment for the DND Clark Rutherford School. The Board assumed custodial responsibility of the school previously maintained by DND. This was effective August 1, 1988.
Digby DSB	323,500*	Funding to assist with additional expenses associated with operating the Islands Consolidated and Westport Schools.
Halifax DSB	1,469,135	Minimum guarantee grant to ensure the Board received funding equal to 1987.
Hants West	95,434	Federal revenue and both Provincial and Federal French Special Projects Revenue were decreased $95,434 to compensate for the over-projections of these revenues in 1988. To offset this, the Province provided an additional $95,434 as supplementary funding.
Kings	50,589	Square footage reassessment for RC Gordon and Dwight Ross Schools. The Board assumed custodial responsibility for both these schools previously maintained by DND. This was effective August 1, 1988.
Northside/Victoria	18,500*	Funding to assist in the cost of maintaining the Bloisdale School.
Pictou	5,000*	Funding to assist in supporting a correspondence/home study program on Pictou Island.
Total 1988 Special Grants	**$1,977,378**	

SPECIAL GRANTS TO SCHOOL BOARDS

1989

DSB	AMOUNT	EXPLANATION
Cumberland	255,000	Funding to assist the Board which encountered difficulties due to a change in the method of accounting for teachers salaries at year end.
	38,000	Salary for an additional teacher at the advocate school (estimated).
Total	293,000	
Halifax City	572,999*	Tuition costs for Halifax County - Bedford DSB students attending classes in schools under the jurisdiction of the Halifax City DSB.
Inverness	20,265*	Funding to assist in the operation and maintenance of the swimming pool in the Strait Area Education & Recreation Centre which is used extensively for educational purposes.
Kings DSB	63,391	An increase in supplementary funding due to an adjustment for DND revenue. (Contract with DND was terminated.)
	200,000	Capital grant re: amalgamation of the Kings DSB and the Hantsport Board of Commissioners.
	62,515	Transition grant re: amalgamation of the Kings DSB and the Hantsport Board of Commissioners. This amount was reimbursed to the four Kings County Municipal Units based on the ratio of the student population.
Total	$ 325,906*	

DSB	AMOUNT	EXPLANATION
Queens	110,000*	Funding to assist with a maintenance budget shortfall.
Richmond	59,800	Additional funding to increase the provincial operating grants to the same level as in 1988. An increase in uniform assessment increased the mandatory municipal contribution by approximately 41%. This would have reduced the provincial grants to the Board below the amounts paid in 1988.
	35,000*	Funding to prevent the closure of the Grant River School.
Total	$ 94,800	
Total 1989 Special Grants	**$1,416,970**	

APPENDIX 6

TERMS OF REFERENCE

FOR PROPOSED SUB-COMMITTEES

Department of Education

Formula Review Committee Study

Terms of Reference for Sub-Committees

Ongoing Mandates

Education Sub-Committee

To develop a system to measure the outcomes of the province's education system such that objective data can be compiled and used in (i) in the assessment of different education delivery alternatives and (ii) the allocation of resources.

In light of the data gathered and its interpretation, to make recommendations to the Minister of Education on initiatives to be taken to improve the educational opportunities and results of the Nova Scotia pupil.

Finance Sub-Committee

To review the education grant funding formulas in light of budgetary guidelines, recommendations from the Education Sub-Committee and submissions from the District School Boards, and the financial and operating performance of the Boards as reported to it on an annual and interim basis.

To make recommendations to the Minister of Education on adjustments to the funding formulas from time to time for the purpose of funding the basic level of educational effort as expressed in resource utilization targets.

Interim Mandate

Commensurate with the recommendations of the Doane Raymond Report on the Formula Review Committee to recommend initial district school boards accountability information requirements to the Minister of Education.

To recommend modifications or amendments to the Minister's accountability information requirements to review accountability reports and to recommend, where warranted, ways of improving resource utilization and/or education delivery quality.

APPENDIX 7

DESCRIPTION OF CALCULATION OF DIFFICULTY INDEX

Department of Education

Formula Review Committee Study

Description of Calculation of Difficulty Index

To account for the varying "degree of difficulty" faced by school boards in scheduling and configuring classrooms and assigning human resources for education service delivery, we developed a difficulty index factor for each board. The factor uses three physical characteristics of the boards; viz, area served, number of schools and dispersion/concentration of pupil population.

The definition of area served and number of schools is straightforward.

As a proxy for the measurement of the dispersion/concentration of the pupil population, we used the number of buses per 10,000 pupils enroled in the school board.

This statistic should be replaced by the number of loaded pupil miles required per regular school day. This data will be used in the calculation of the transportation service grant.

We created three sub-indices; one each for area served, number of schools and number of buses per 10,000 pupils.

Area Served

An area served index for each board was calculated by taking the area served raised to the power of 3/4 divided by the area served by the average board also raised to the power of 3/4.

Taking the area to the 3/4 power was a way of giving equal weight to the area of the board and the square root of the area representing the length of one side of its theoretical square shape. If all the weight was given to area, then boards with large portions of uninhabited areas would be advantaged. If all the weight was given to the length, boards with an even distribution of students (as contrasted with boards serving populations distributed along major arteries) throughout would be disadvantaged.

Number of Schools

A schools index for each board was calculated by taking the inverse of the number of schools divided by the inverse of the average number of the schools per board.

Student Dispersion/Concentration

A pupil dispersion/concentration index for each board was calculated by taking the number of buses per 10,000 pupils divided by the number of buses per 10,000 pupils for the average board.

Difficulty Index

The difficulty index is the multiplicand of the area served, the number of schools and the dispersion/concentration indices. Implicitly we give equal weight to the three sub-indices. Alternative weighting would give rise to a different difficulty index per board.

When the loaded pupil mile data is available and introduced into the index calculation the relative weights of the sub-indices should be reviewed and possibly adjusted.

Acadian Factor

As in the previous general formula we included an adjustment to recognize the unique difficulties posed for the education service delivery in the Francophone districts. We took note of the relative numbers of students benefiting from the Acadian effort, discussed with DOE officials the practical problems associated with the delivery of the Acadian program and determined the incremental number of FTEs required to provide the service over and above a conventional unilingual school and assigned factors as follows:

School Board	Incremental FTEs	Factor
Richmond	10	0.0601
Clare Argyle	9	0.0411
Inverness	9	0.0275

The Acadian Factors require periodic review by those directly familiar with the constraints offered by serving the Francophone communities. This will occur as the pupil population in the school board changes and if Acadian schools are added or dropped from the board.

Distant School Factor

While the difficulty index recognizes the physical characteristics of all the boards in Nova Scotia, we believe additional restrictions are placed on boards when there are significant access problems.

The difficulty index has been adjusted with prudent judgement on the part of those most familiar with the individual circumstances. Using criteria developed by DOE officials and reviewed by us we conclude that the following additional FTEs should be allowed to accomodate distant schools.

School Board	Incremental FTEs	Factor
Richmond	1.3	0.0083
Pictou	1.3	0.0020
Lunenburg	1.0	0.0019
Inverness	0.5	0.0016
Halifax County - Bedford	0.7	0.0004
Digby	8.5	0.0554
Cumberland	3.9	0.0099

The criteria used to select the relevant schools are are provided on the next page.

I An existing school is deemed to be a distant school if:

A. The Distant School

1. Has a September 30 school enrolment
2. From its own catchment area
3. Of less than
    - (a) 300 pupils if P-12
    - (b) 200 pupils if P-9
    - (c) 120 pupils if P-6
    - (d) 60 pupils if P-3
    - (e) 16 pupils for each grade of any school whose nomenclature is not as shown above

AND

B. The Nearest School

1. In the district
2. Offering a program at the same grade level(s)
3. Using a comparable language(s) of instruction
4. Is not accessible within the limits shown below:
    - (a) Junior Elementary: 25 km or 45 minutes whichever is greater
    - (b) Senior Elementary: 35 km or 1 hour whichever is greater
    - (c) Secondary: 50 km or 1 1/4 hours whichever is greater
5. By school bus
6. One way
7. Picking up students along the way as per D.O.T. regulations
8. Using public roads
9. Under winter conditions
10. To a sufficient number of students in the distant school
11. Measured from the place of residence of those students

II In calculating school bus travel time, such limiting conditions as are shown below must be considered:

A. Road-related Conditions and Safety Considerations

1. Unpaved roads
2. 200 and 500 series roads
3. One lane bridges and their weight restrictions
4. D.O.T. depots located at a great distance
5. Narrow, steep gradient, winding roads
6. Condition of bus turning points
7. Etc...........

B. Mode of Travel

1. Waiting and travel time related to ferry schedule
2. Lack of any form of public transportation
3. Etc...........

C. Climatic Conditions Typical of the Area

1. Heavy snow fall
2. Heavy drifting
3. Heavy fog
4. Heavy freezing spray
5. Etc...........

III When a school is comprised of two or more buildings, then a building may be declared distant based on conditions related to that building only.

APPENDIX 8

DETAILED RESPONSES TO TERMS OF REFERENCE QUESTIONS

Department of Education
Formula Review Committee Study
Detailed Responses to Terms of Reference Questions

Terms of Reference #1

- Should the Government continue to base its funding decisions on the advice of an independent committee of persons representing the key organizations involved in public education?

    Yes, however an expanded role to deal with education outcomes is required.

- If so, who should be represented on this committee? What resource persons or alternates should participate? What should the process be for appointing persons to serve on the committee?

    Representatives from organizations previously on the FRC.

    Alternates should be at the discretion of the appointing bodies.

    Resource personnel should come from the DOE.

    Appointment of representatives to the Committee should be at the discretion of the body with the proviso that the term is a minimum of two years with at least one year prior as an alternate.

    Minister of Education to appoint the Chair with two year renewable term.

- What should the voting structure of the committee be?

    All members should vote on matters dealing with their respective mandates.

- To whom should the committee report?

    Minister of Education

- If an independent committee is not desired, how should school board funding be determined?

    Not relevant.

- What should be the mandate of the Formula Review Committee; i.e., should the mandate include
- projecting expenditures
- determining formulas and rates
- determining allocations of financial responsibility
- recommending policies and standards for delivery and administration of education systems?

    Projecting expenditures
    Determining formulas and rates
    Developing a system to monitor and evaluate education outcomes
    Developing district school board accountability information requirements

- Assuming a committee approach, when should the committee meet and how often, when should a final report be submitted, and when should approved funding be announced?

  Committee with funding advisory mandate should meet between June and November of each year; every second week for half to three quarters a day

  Committee with outcome advisory mandate should meet throughout the year; initially, every second week for one day, thereafter, every second week for half day

  Final report should be submitted to the Minister in November or December with funding announced in tandem with the Provincial budget

- Is the present methodology for projecting expenditures and determining grant formulas reasonable, appropriate and equitable?

  Methodology for projecting expenditures is weak. Uses year old budget data. Compounds the effects of special grants. Is without any direction from the school boards on operating plans.

  Methodology for determining grant formulas is weakened by influence of vested interests on the Committee, requires exceptionally skilled Chair, is reasonable in the context but is without creative freedom. The methodology appears inappropriate and inequitable.

- Is it necessary to predict expenditures of school boards prior to recommending or approving funding?

  Yes for the time being. No in the long term, especially if supplementary funding was 100% funded by the municipal paying partners.

- Is the best possible information available and being used to project expenditures and grants?

  No. Interim board financial statements and forecasts would be appropriate.

- Should school boards and other interested parties be asked annually to submit proposals on funding arrangements before the process begins? Should responses to submissions be required?

  Perhaps. More information would be available to the Committee

  No.

- Should the process of recommending funding be completely independent or free from guidelines from the paying partners?

  No.

- Should funding or parts thereof (i.e., board operating revenues) be determined on an individual board basis or should they continue to be based on provincial formulas?

  Master formula.

Terms of References #2

- Are the factors used in the funding formulas the most appropriate (i.e., using enrolments as the basis for the general formula; program vs student-based funding)?

  No. Suggest the concept of target resource levels for base level of education service.

- Are the amounts provided to boards sufficient and reasonable?

  Most within reason (especially in view of our determination of a base level of education service effort), however some changes suggested.

- Do the formulas result in equitable distribution of funds?

  No. Redistribution appears desirable to equalize educational opportunity levels.

- Do the formulas encourage sound management of resources?

  Not necessarily.

- Should there still be concern for maintaining the 87/13 split of funding?

  Yes, concept of maintaining the status quo is good. The ratio however is actually 84/16 when supplementary funding is considered.

- Should funding be approved or indicated for more than one year to assist boards with long range planning?

  Should introduce concept of target resource levels for base level of education service.

- Should a change in school board year end be considered to alleviate some of the present timing problems?

  Might assist in the long run but needs cooperation from municipalities as well as school boards.

- Should an independent body be set up to address additional funding requests from boards as opposed to having the Department review appeals for additional funding beyond that provided by the formulas?

  No.

Terms of Reference #3

- Should additional legislative control be given to the provincial government to increase influence over school board management?

  Minister has power now. Influence can be gained through recommended reporting regime.

- What is the nature and extent of the accountability the Government of Nova Scotia should require for district school boards?

  Extensive annual report, built on management assertions, demonstrating prudent financial management and delivery of effective education services.

- How can the need for accountability be balanced against the need to respect local autonomy in administering the education system?

  By providing the District School Board with an opportunity and a vehicle to demonstrate effective and efficient use of the public's funds.

BACKGROUND NOTES FOR ANNOUNCEMENT BY THE HONOURABLE RONALD C. GIFFIN, Q.C. REGARDING SCHOOL BOARD FUNDING FOR 1990 AND IMPLEMENTATION OF CHANGES TO THE HIGH SCHOOL PROGRAM

MARCH 30, 1990

I am pleased to announce the grants by the Province of Nova Scotia for the 1990 calendar year to the 21 district school boards in this province. This year, these grants will total 601.3 million dollars. In addition, I will table the most recent report of the Formula Review Committee which will be circulated to school boards and municipalities within the next few days, and I will also announce some changes in the implementation of the new high school program.

There has been significant growth in the cost of public school education during the last few years, and this growth has been supported by increased grants from both the provincial and municipal tax bases.

For the 1990-91 fiscal year, we will continue to provide funding for the maintenance of essential public school programs. However, limitations on provincial resources, restrictions in transfer payments from the Government of Canada, and our desire to embark more rigorously on positive financial changes for the overall betterment of Nova Scotia's financial position have caused us to re-assess the growth in public school programs. We must make financial decisions that will lead to more accountability, better management practices, more evaluation and emphasis on value for money to ensure a more efficient use of the limited financial resources available to all Nova Scotians.

As part of this initiative, which is an essential part of our overall plan to limit expenditures to available revenues, the Government has decided to provide increases in operating grants to district school boards of approximately 3.6% (or $19.1 million) and increases in debt repayment grants of 10.1% (or $4.4 million) for a total increase of $23.5 million (or 4.1%) over 1989 calendar year operating grants and capital debt service grants. In addition, approximately $3.7 million will be provided for replacement of school busses so that total provincial grants to school boards in the 1990 calendar year will exceed $601.3 million. Staff of the Department of Education will be preparing detailed calculations for each district school board within the next few days and statements which report the exact amount of the provincial grant for 1990 will be issued to each board .

In addition, the mandatory municipal education tax rate will be increased from the current level of 38¢ per $100 of uniform assessment to 40¢. This will provide additional municipal funds of $7.7 million to help offset school board operating expenses.

The increased operating grants from the Department of Education will be inclusive of amounts which, during the past few years, have been provided through supplementary funding.

In concluding these announcements on education funding, I wish to note that the Doane Raymond Report on funding formulas has been recently presented to me. I will also table the report in this House today. Departmental staff have been directed to release the report immediately to school boards and municipal units throughout Nova Scotia. During the next short period, plans will be finalized to arrange for regional meetings and discussions on all aspects of the report and to seek input from all stakeholders concerning changes in funding that could become effective in the 1991 calendar year.

CHANGES TO THE HIGH SCHOOL PROGRAM

I am also announcing today some adjustments in the schedule for implementing changes in the Nova Scotia senior high school program.

Students entering grade 10 in September 1990 will require 16 credits for high school completion, as is now the case. However, among these 16 must be one math, one science, and one social studies, in addition to the three English language arts credits currently required. In Acadian schools, the requirement for three French language credits will continue.

The move to an 18-credit requirement will take place in two stages, with 17 credits required for students entering in September 1993 and 18 for those entering in 1996. For students entering Grade 10 in 1996, the 18 credits must also include one credit in fine arts and one credit in French, as well as one half credit each in physically active lifestyles and in independent living skills.

Many schools are already moving towards the goals of the revised high school program. For example, an 18-credit requirement is now common in many parts of Nova Scotia. I am encouraging all school boards to continue their progress towards these goals, as their resources permit. My purpose in adjusting the provincial implementation schedule is to accommodate boards who feel their available financial and human resources would be unduly strained by more rapid implementation.

It is also critical that teachers and administrators throughout the province have a thorough understanding of the philosophy behind the planned changes, and receive the support they need to adopt a wide variety of teaching strategies to promote success for all students. My staff will be co-operating with school board staffs to ensure this help is provided, and the revised schedule will facilitate this work.

There will also be some modifications in the plans for piloting the planned changes. With the new schedule, everyone involved in the changes will have more time for the study and reflection needed to ensure that our high school program is the best we can offer our young people.